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

ELITE PROJECT: 29540

DATES TESTED: February 12 through 19, and March 1, 2001

TEST PERSONNEL: Daniel E. Crowder

TEST SPECIFICATION: Federal Communication Commission (FCC) Part 22, TIA/EIA/IS-97, and Industry Canada (IC) RSS-131, Issue 1

ENGINEERING TEST REPORT NO. 23446

MEASUREMENT OF RF INTERFERENCE FROM

A MODEL AE04B-A0236

SELECTAMP800 CHANNELIZED AMPLIFIER

FOR: Andrew Corporation
Richardson, TX

PURCHASE ORDER NO: 1379238A

Report By:
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ATL-0152-E

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Registered Professional
Engineer of Illinois - 44894

ENGINEERING TEST REPORT NO. 23446

ADMINISTRATIVE DATA AND SUMMARY OF TESTS

DESCRIPTION OF TEST ITEM: Selectamp800 Channelized Amplifier

MODEL NO: AE04B-A0236 **SERIAL NO:** None Assigned

MANUFACTURER: Andrew Corporation

APPLICABLE SPECIFICATIONS: FCC Part 22, TIA/EIA/IS-97 and IC RSS-131, Issue 1

QUANTITY OF ITEMS TESTED: One (1)

TEST PERFORMED BY: ELITE ELECTRONIC ENGINEERING INCORPORATED
Radio Interference Consultants
Downers Grove, Illinois 60515

DATE RECEIVED: February 5, 2001

DATES TESTED: February 12 through 19, and March 1, 2001

PERSONNEL (OPERATORS, OBSERVERS, AND CO-ORDINATORS):
CUSTOMER: No Andrew Corporation personnel were present.
ELITE ELECTRONIC: Daniel E. Crowder

ELITE JOB NO.: 29540

ABSTRACT: The model AE04B-A0236 Selectamp800 channelized amplifier complies with the technical requirements in FCC Part 22, TIA/EIA/IS-97 and IC RSS-131, Issue 1. See test results and data pages for more details.

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(INCLUDING DATA SHEETS): 60

ENGINEERING TEST REPORT NO. 23446

MEASUREMENT OF RF INTERFERENCE FROM

A MODEL AE04B-A0236

SELECTAMP800 CHANNELIZED AMPLIFIER

1.0 INTRODUCTION:

1.1 DESCRIPTION OF TEST ITEM: This document presents the results of a series of radio interference measurements performed on a model AE04B-A0236 Selectamp800 channelized amplifier, (hereinafter referred to as the test item). No serial number was assigned to the test item. The tests were performed for Andrew Corporation of Richardson, Texas.

The test item provides selective frequency amplification of user specified frequencies in the Cellular band. The test item selectively filters one 1.25MHz channel in the Uplink and Downlink bands as determined by the operator. Frequency selection, gain adjustment and fault monitoring is accomplished with monitor and control circuitry and firmware.

For the Uplink, the test item has a maximum gain of 85dB and a rated output power of 1 watt.

For the Downlink, the test item has a maximum gain of 95dB and a rated output power of 8 watts.

1.2 PURPOSE: The test series was performed to determine if the test item meets the technical requirements of the FCC Part 22, TIA/EIA/IS-97 and the IC RSS-131, Issue 1.

1.3 DEVIATIONS, ADDITIONS AND EXCLUSIONS: There were no deviations, additions to, or exclusions from the test specification during this test series.

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

- Federal Communications Commission "Code of Federal Regulations", Title 47, Part 22, dated 1 October 1999
- Federal Communications Commission "Code of Federal Regulations", Title 47, Part 2, dated 1 October 1999
- ANSI C63.4-1992, "American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz"
- TIA/EIA/IS-97, "Recommended Minimum Performance Standards for Base Stations Supporting Dual-Mode Wideband Spectrum Cellular Mobile Stations", dated July 1994
- IC RSS-131, Issue 1, "Radio Signal Enhancers for the Mobile Telephone Service"

1.5 SUBCONTRACTOR IDENTIFICATION: This series of tests was performed by Elite Electronic Engineering Incorporated, of Downers Grove, Illinois. The laboratory is accredited by the National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP). NVLAP Lab Code: 100278-0.

1.6 LABORATORY CONDITIONS: The temperature at the time of the test was 22°C and the relative humidity was 22%.

2.0 TEST ITEM SETUP AND OPERATION:

2.1 POWER INPUT: The test item was powered with 115VAC, 60Hz power. Power was supplied via 2 meter long, 3 wire unshielded power leads.

2.2 GROUNDING: The test item was grounded only through the third wire of its input power cord.

2.3 PERIPHERAL EQUIPMENT: The following peripheral equipment was used with the test item:

ITEM	DESCRIPTION
Laptop Computer	Running Smart PC Lite Software

The software is used to control the attenuator and frequency settings of the test item. The laptop computer was connected to the test item, when changing settings, with a 2 meter long RJ45 cable.

2.4 MODULATION: For all tests, the test signal was modulated with CDMA. The external modulation function of a Rohde & Schwarz M/N SMHU58 Signal Generator was used in conjunction with a Lecroy LW420A waveform generator. For the radiated emissions measurements, a CW signal was also used.

2.5 FREQUENCY SELECTION: One test frequency was selected for each frequency band. The specified channel spacings for each modulation are shown below:

Modulation	Channel Spacing
CDMA	1.23MHz

The specific test frequencies are designated as follows:

Band	Frequency (MHz)
Uplink	836.5
Downlink	881.5

2.6 RF POWER OUTPUT: The input levels were adjusted to reach the rated output levels shown below:

Modulation	Direction	Rated Power (dBm)	Rated Power (Watts)
CDMA	Uplink	30	1.0
CDMA	Downlink	39	8.0

3.0 TEST EQUIPMENT:

3.1 TEST EQUIPMENT LIST: 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.

3.2 CALIBRATION TRACEABILITY: Test equipment is maintained and calibrated on a regular basis. All calibrations are traceable to the

National Institute of Standards and Technology (NIST).

4.0 REQUIREMENTS, PROCEDURES AND RESULTS:

4.1 RF POWER OUTPUT AND GAIN MEASUREMENTS:

4.1.1 REQUIREMENTS: In accordance with paragraph 22.913, the effective radiated power (ERP) level is allowed up to 50 watts for base transmitters.

In accordance with paragraph 6.2 of IC RSS-131, the passband gain 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: The test item was adjusted for the rated gain. The test item was operated to measure the output for the Uplink.

(a) The input signal (uplink) was set to 836.5MHz.

(b) The input signal was CDMA modulated.

(c) The HP 432A Power Meter was connected to the output of the test item and the output of the test item was monitored.

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

(e) The input signal was connected directly to the spectrum analyzer. The input signal level was measured and recorded.

(f) The spectrum analyzer was adjusted so that the top of the display represented the rated gain of the test item as calculated from the input signal level. The output of the test item was measured and plotted.

(g) The test item was operated to measure the output for the Downlink.

(h) Steps (b) through (f) were repeated with the input signal (downlink) set to 881.5MHz.

4.1.3 RESULTS: The output power measurements are presented on data page 18. The power output achieved for the Uplink was 8 watts (39dBm) with CDMA Modulation. The power output achieved for the Downlink was 1 watt (30dBm) with CDMA Modulation. The remainder of the tests were performed at these power levels. The power output complies with the FCC requirements.

The ERP 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 ERP requirement cannot be directly applied to the test item.

Plots of the gain measurements are presented on data pages 19 through 24. The gain of both the uplink and downlink complies with the IC RSS-131 requirements.

4.2 OCCUPIED BANDWIDTH MEASUREMENTS:

4.2.1 REQUIREMENTS: For CDMA modulation, in accordance with paragraph 10.5.1.3 of the TIA/EIA/IS-97 specification, the mean power of any emission shall be attenuated below the unmodulated carrier power (P) in accordance with the following schedule:

(1) For offset frequencies greater than 750kHz from the CDMA Channel center frequency: At least 45dB

(2) For offset frequencies greater than 1.98MHz from the CDMA Channel center frequency: At least 60dB

4.2.2 PROCEDURES: The test item was operated to measure the occupied bandwidth for the Uplink.

(a) The input signal (uplink) was set to 836.5MHz. 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 CDMA modulated.

(c) A spectrum analyzer was connected to the output of the test item. With a bandwidth of the spectrum analyzer set to 30 kHz, 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) The test item was operated to measure the occupied bandwidth for the Downlink.

(f) Steps (b) through (d) were repeated with the input signal (downlink) set to 881.5MHz.

4.2.3 RESULTS: The plots of the Uplink occupied bandwidth measured with the CDMA modulation of the carrier are presented on data pages 25 through 27. The plots of the Downlink occupied bandwidth measured with the CDMA modulation of the carrier are presented on data pages 28 through 30.

The limits, shown on the plots, are referenced to the power measured from the unmodulated carrier.

As can be seen from the data, the test item Uplink and Downlink outputs met the occupied bandwidth requirements with the CDMA modulation of the carrier. The sideband emissions measured at the test item output were similar to the sideband emissions measured from the input signals.

4.3 SPURIOUS EMISSIONS AT ANTENNA TERMINAL:

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

In accordance with paragraph 22.917(e), on any frequency twice or more than twice the fundamental frequency, the spurious emissions and intermodulation products shall be attenuated below the unmodulated

carrier power (P) by at least 43 + 10 log(P)dB. This requirement translates to a field strength limit of -13dBm (ERP). The peak power of the emissions shall be measured from 30MHz up to the 10th harmonic of the fundamental frequency.

For CDMA modulation, the mean power of any emission shall be attenuated below the unmodulated carrier power (P) in accordance with the following schedule:

(1) Outside the cellular band (821-896MHz), the attenuation shall be at least 43 + 10 log(mean output power in watts) dB.

4.3.2 PROCEDURES: The test item was operated to measure the spurious emissions at the antenna terminals for the Downlink. The test was performed using CDMA modulation.

(a) The input signal (uplink) was set to 836.5MHz. The input signal level was adjusted to provide the rated level at the test item output.

(b) The input signal was CDMA modulated.

(c) A spectrum analyzer was connected to the output of the test item. The frequency span was adjusted to cover 30 MHz up to 1 GHz. With a bandwidth of the spectrum analyzer set to 100 kHz, the output of the test item was measured and recorded.

(d) The frequency span was adjusted to cover 1 GHz up to 2 GHz. With a bandwidth of the spectrum analyzer set to 1 MHz, the output of the test item was measured and recorded.

(e) The frequency span was adjusted to cover 2 GHz up to 10 GHz. With a bandwidth of the spectrum analyzer set to 1 MHz, the output of the test item was measured and recorded. This range covers up through the 10th harmonic.

(f) Steps (c) through (e) were repeated on the input signal from

the signal generator.

(g) The test item was operated to measure the spurious emissions at the antenna terminals for the Downlink.

(h) Steps (b) through (f) were repeated with the input signal (downlink) set to 881.5MHz.

4.3.3 RESULTS: The plots of the antenna conducted output measurements are presented on data pages 31 through 46. As can be seen from the data, the test item did not produce spurious emissions in excess of the -13 dBm limit on the Uplink or Downlink.

4.4 FIELD STRENGTH OF SPURIOUS EMISSIONS:

4.4.1 PRELIMINARY RADIATED MEASUREMENTS:

4.4.1.1 REQUIREMENTS: Because emission levels may be masked by interference from sources other than the test item, preliminary radiated measurements are first performed in the low ambient environment of a shielded enclosure. The radiated emissions from the test item were first measured using peak detection. This data was then automatically plotted. The frequencies with significant emission levels were manually measured.

4.4.1.2 PROCEDURES: All preliminary tests were performed in a 32ft. x 20ft. x 18ft. hybrid ferrite-tile/anechoic absorber lined test chamber. The walls and ceiling 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 C63.4 1992 for site attenuation.

The shielded enclosure prevents emissions from other sources, such as radio and TV stations from interfering with the measurements. All powerlines and signal lines entering the enclosure pass through

filters on the enclosure wall. The powerline filters prevent extraneous signals from entering the enclosure on these leads.

(a) The preliminary measurements were performed with the test item operating with the input signal (uplink) at 836.5MHz, with CW modulation. The broadband measuring antenna was positioned at a 1 meter distance from the test item. The frequency range from 30MHz to 10GHz was investigated. The readings were taken with a peak detector function and recorded.

(b) The modulation was changed to CDMA and step (a) was repeated separately with the input signal (uplink) set to 836.5MHz.

(c) Steps (a) and (b) were repeated separately with the input signal (downlink) set to 881.5MHz.

4.4.1.3 RESULTS: The preliminary plots are presented on data pages 47 through 54. Factors for the antenna and distance correction were added to the data before it was plotted.

This data is only presented for a reference, and is not used as official data. All significant radiated emissions were subsequently measured manually.

4.4.2 FINAL RADIATED EMISSIONS:

4.4.2.1 REQUIREMENTS: In accordance with paragraph 22.917(e), on any frequency twice or more than twice the fundamental frequency, the emissions shall be attenuated below the unmodulated carrier power (P) by at least 43 + 10 log(P)dB. This requirement translates to a limit of -13dBm. The peak power of the emissions shall be measured from 30MHz up to the 10th harmonic of the fundamental frequency.

4.4.2.2 PROCEDURES: Final measurements were performed in a 32ft. x 20ft. x 18ft. hybrid ferrite-tile/anechoic absorber lined

test chamber. The walls and ceiling 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 C63.4 1992 for site attenuation.

The final emission test procedure is as follows:

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 antenna output was terminated in 50 ohms for the tests.

c) A double ridged waveguide antenna was placed on an adjustable height antenna mast 3 meters from the test item for emission measurements.

d) Detected emissions were maximized at each frequency by rotating the test item and adjusting the receive antenna height and polarization.

e) The maximum meter reading was recorded. Measurement BW was 1 MHz and Video of 3MHz. Peak reading were recorded. No averaging methods or corrections were applied.

f) Measurements were performed with the input signal modulated with CW and CDMA.

g) Measurements were performed separately at each significant frequency detected during the preliminary measurements.

The equivalent power into a dipole antenna was determined from the field intensity levels measured at 3 meters using the substitution method. To determine the emission power, another tuned dipole antenna or double ridged waveguide antenna was then set in place of test item and connected to a calibrated signal generator. The output of the signal generator was adjusted to match the received level at the spectrum analyzer. The signal level was recorded. The reading was then corrected to compensate for cable loss, as required, and, when the ridged waveguide antenna was used, increased by the difference in gain between the dipole and the waveguide antenna.

4.4.2.3 RESULTS OF FINAL RADIATED TEST: The final

radiated levels are presented on data pages 55 through 58. The radiated emissions were measured through the 10th harmonic. All emissions measured from the test item were within the specification limits. The emissions level closet to the limit occurred at 1763MHz, with the transmit frequency at 881.5MHz and CDMA modulation. The emissions level at this frequency was 9.8dB within the limit.

4.5 FREQUENCY STABILITY:

4.5.1 REQUIREMENTS: In accordance with Paragraph 22.355, the frequency stability shall within +/- 1.5 parts per million (0.00015%) for base, fixed systems.

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: A separate procedure was performed for each of the two tests. The procedures 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 signal generator was connected to the uplink input. The measurement equipment was connected to the uplink output.

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

(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.

(5) Steps 1 through 4 were repeated separately with the

signal generator connected to the downlink input. The measurement equipment was connected to the downlink output.

(b) Frequency Stability vs. Voltage:

(1) The signal generator was connected to the uplink input. The measurement equipment was connected to the uplink output.

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

(3) The input voltage was adjusted to 85 percent of the nominal voltage or 98 Volts 60Hz and the test item was set to transmit. This frequency was recorded.

(4) The input voltage was adjusted to 115 percent of the nominal voltage or 132 Volts 60Hz and the test item was set to transmit. This frequency was recorded.

(5) Steps 1 through 4 were repeated separately with the signal generator connected to the downlink input. The measurement equipment was connected to the downlink output.

4.5.3 RESULTS OF TESTS: The results of the frequency stability vs. temperature tests can be found on data page 59. As can be seen from the data, the frequency stability of the test item is within +/- 1.5 ppm.

The results of the frequency stability vs. voltage variation tests can be seen on data page 60. As can be seen from the data, the frequency stability of the test item is within +/- 1.5 ppm.

5.0 CONCLUSION:

It was found that the Andrew Corporation model AE04B-A0236 Selectamp800 channelized amplifier, complies with the RF Power Output and Gain, the Occupied Bandwidth, the Spurious Emissions at Antenna Terminal, the Field Strength of Spurious Emissions and the Frequency Stability requirements of the FCC Part 22 and 2, TIA/EIA/IS-97 and IC RSS-131, Issue 1. The Intermodulation requirements were deemed to be not applicable.

6.0 CERTIFICATION:

Elite Electronic Engineering Incorporated 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 only to the test item at the test date as operated by Andrew Corporation personnel. Any electrical or mechanical modification made to the test item subsequent to the specified test date will serve to invalidate the data and void this certification.

7.0 ENDORSEMENT DISCLAIMER:

This report must not be used to claim product endorsement by NVLAP or any agency of the US Government.

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TABLE I: TEST EQUIPMENT LIST

Eq ID	Equipment Description	Manufacturer	Model No.	Serial No.	Frequency Range	Cal Date	Cal Inv	Due Date
Equipment Type: ACCESSORIES, MISCELLANEOUS								
XZG1	ATTENUATOR/SWITCH DRIVER	HEWLETT PACKARD	11713A	3439A02724	---	02/28/00	12	02/28/01
Equipment Type: AMPLIFIERS								
APK1	PRE-AMPLIFIER	HEWLETT PACKARD	8449B	3008A01243	1-26.5GHZ	02/16/01	12	02/16/02
Equipment Type: ANTENNAS								
NWF1	RIDGED WAVE GUIDE	EMCO	3105	2041	1-12.4GHGZ	08/01/00	12	08/01/01
NWF2	RIDGED WAVE GUIDE	ELECTRO-METRICS	RGA 180	2521	1-12.4GHZ	08/01/00	12	08/01/01
Equipment Type: ATTENUATORS								
T1E9	10DB, 25W ATTENUATOR	WEINSCHEL CORP.	46-10-34	BH7997	DC-18GHZ	02/04/01	12	02/04/02
T2D5	20DB, 25W ATTENUATOR	WEINSCHEL	46-20-43	AY9244	DC-18GHZ	01/12/01	12	01/12/02
T2DA	20DB, 25W ATTENUATOR	WEINSCHEL	46-20-34	BH5446	DC-18GHZ	11/27/00	12	11/27/01
Equipment Type: CONTROLLERS								
CDG1	COMPUTER	HEWLETT PACKARD	D5893T	US91465296	---		N/A	
Equipment Type: METERS								
MFC0	MICROWAVE FREQ. COUNTER	HEWLETT PACKARD	5343A	2133A00591	10HZ-26GHZ	06/02/00	12	06/02/01
MPA0	POWER METER	HEWLETT PACKARD	432A	1141A08696	0.01-40GHZ	07/12/00	12	07/12/01
MPAA	THERMISTOR MOUNT	HEWLETT PACKARD	8478B	1144A08340	0.01-18GHZ	08/22/00	12	08/22/01
Equipment Type: PRINTERS AND PLOTTERS								
HRG1	LASERJET 2100XI	HEWLETT PACKARD	C4170A	USCD047809	---		N/A	
Equipment Type: RECEIVERS								
RAC2	SPECTRUM ANALYZER	HEWLETT PACKARD	85660B	3638A08770	100HZ-22GHZ	11/13/00	12	11/13/01
RACC	RF PRESELECTOR	HEWLETT PACKARD	85685A	2648A00507	20HZ-2GHZ	01/15/01	12	01/15/02
RACD	RF PRESELECTOR	HEWLETT PACKARD	85685A	3010A01205	20HZ-2GHZ	03/01/00	12	03/01/01
RAE5	SPECTRUM ANALYZER	HEWLETT PACKARD	8566B	2532A02136	100HZ-22GHZ	05/31/00	12	05/31/01
RAF4	QUASIPEAK ADAPTER	HEWLETT PACKARD	85650A	2043A00320	0.01-1000MHZ	11/13/00	12	11/13/01
Equipment Type: SIGNAL GENERATORS								
GBQ0	SIGNAL GENERATOR WITH I/Q	ROHDE & SCHWARZ	SMHU-58	843558/039	1KHZ-4320MHZ	07/14/00	12	07/14/01
GDJ1	SYNTHESIZED GENERATOR	HEWLETT PACKARD	8672A	2132A02171	2-18GHZ	03/24/00	12	03/24/01
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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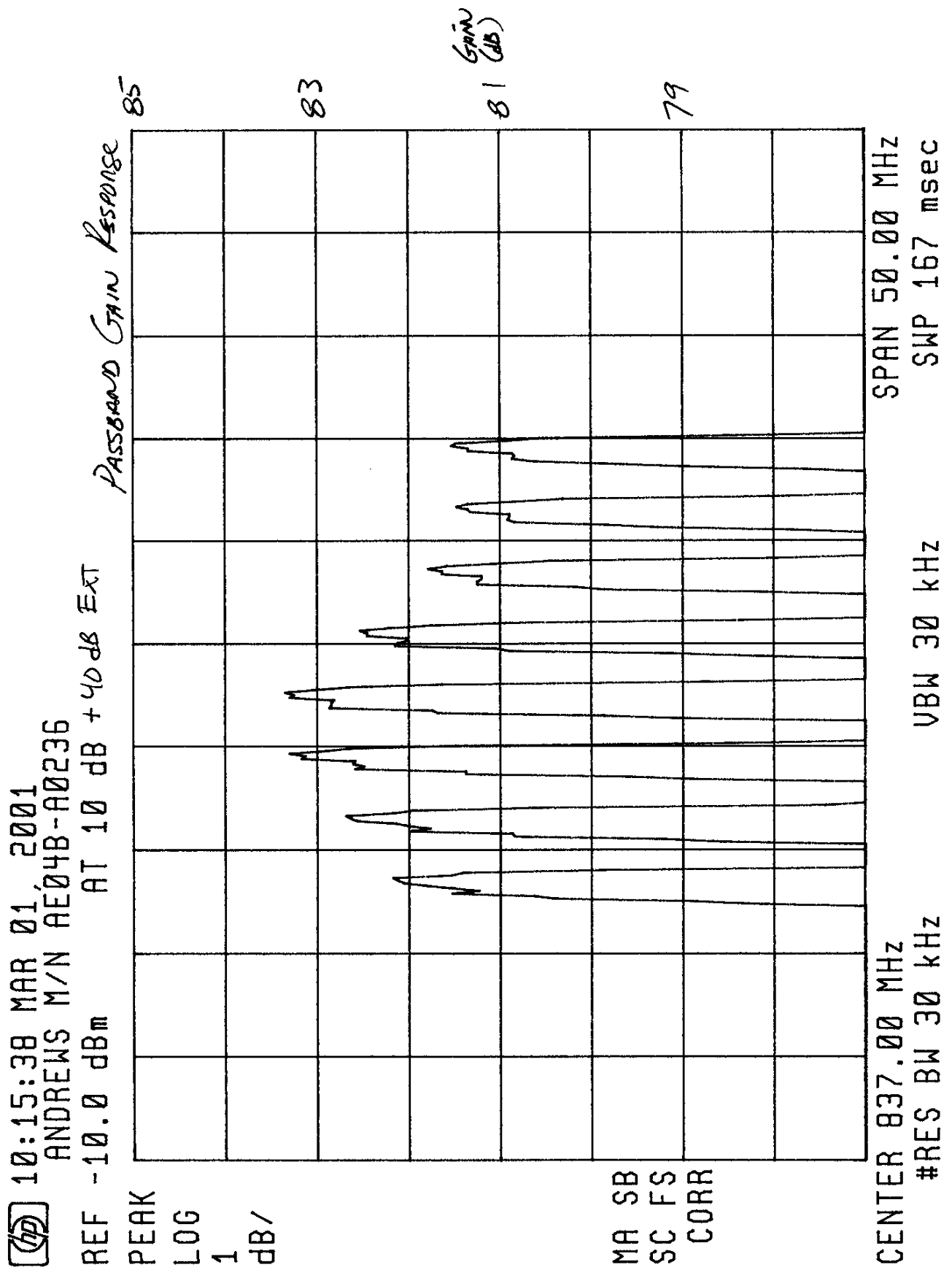
DATA SHEET

MANUFACTURER	: ANDREW CORP.
TEST ITEM	: SELECTAMP800 CHANNELIZED AMPLIFIER
MODEL NO.	: AE04B-A0236
SERIAL NUMBER	: NONE ASSIGNED
TEST DESCRIPTION	: RF POWER OUTPUT MEASUREMENTS
TEST EQUIPMENT	: See Table I
DATE TESTED	: FEBRUARY 12, 2001
NOTES	: Unmodulated

FREQUENCY MHz	METER READING dBm	EXTERNAL ATTEN. dB	TOTAL POWER dBm	TOTAL POWER Watts
Set to Maximum Gain				
836.5	-10.9	49.9	39.0	8.0
881.5	-19.9	49.9	30.0	1.0

CHECKED BY: 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ANDREWS M/N AE04B-A0236
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GAIN (dB)
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83
81
79
PEAK
LOG
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dB/
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SC FS
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VBW 30 kHz
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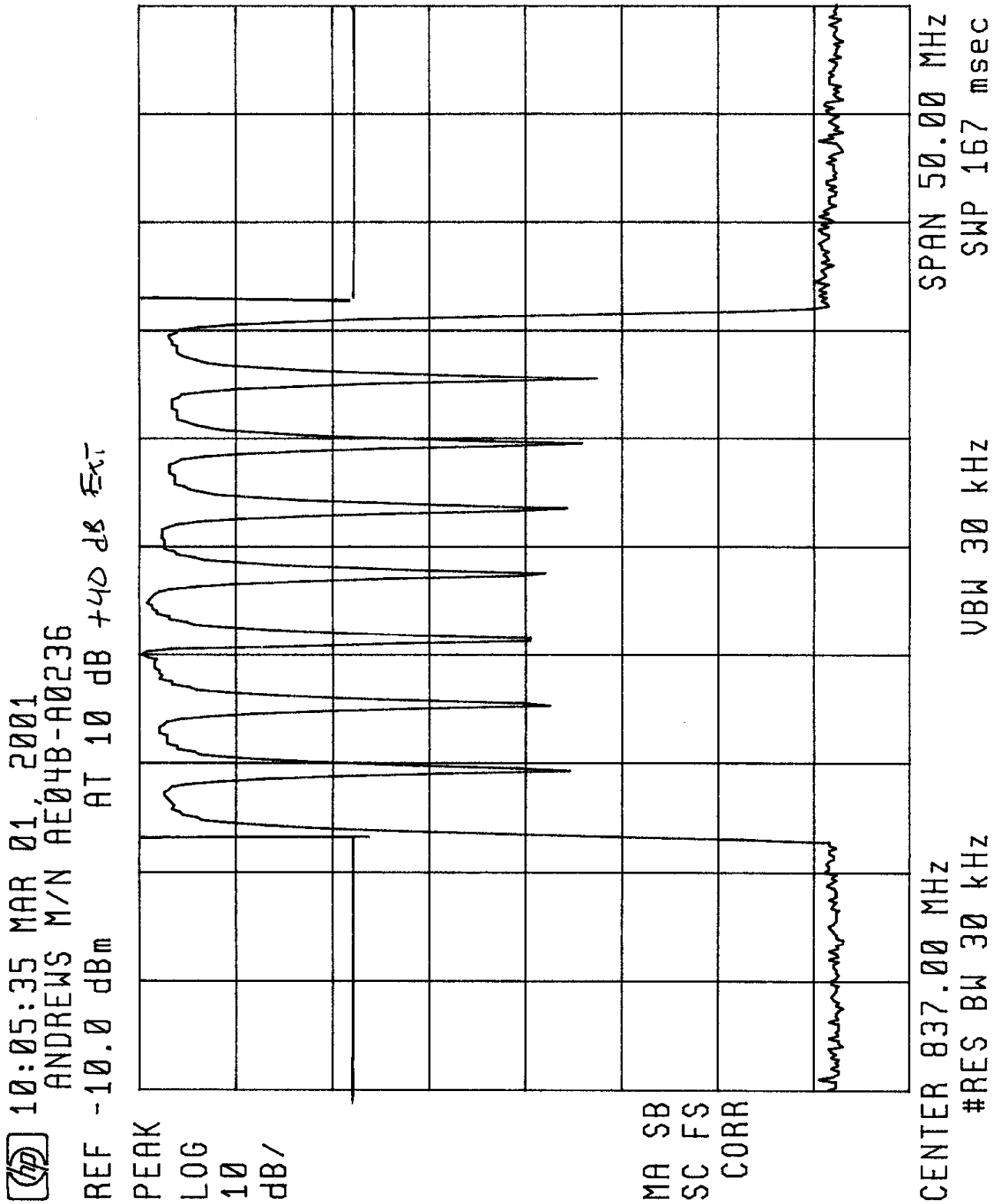
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PEAK
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dB/
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CORR
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VBW 30 kHz
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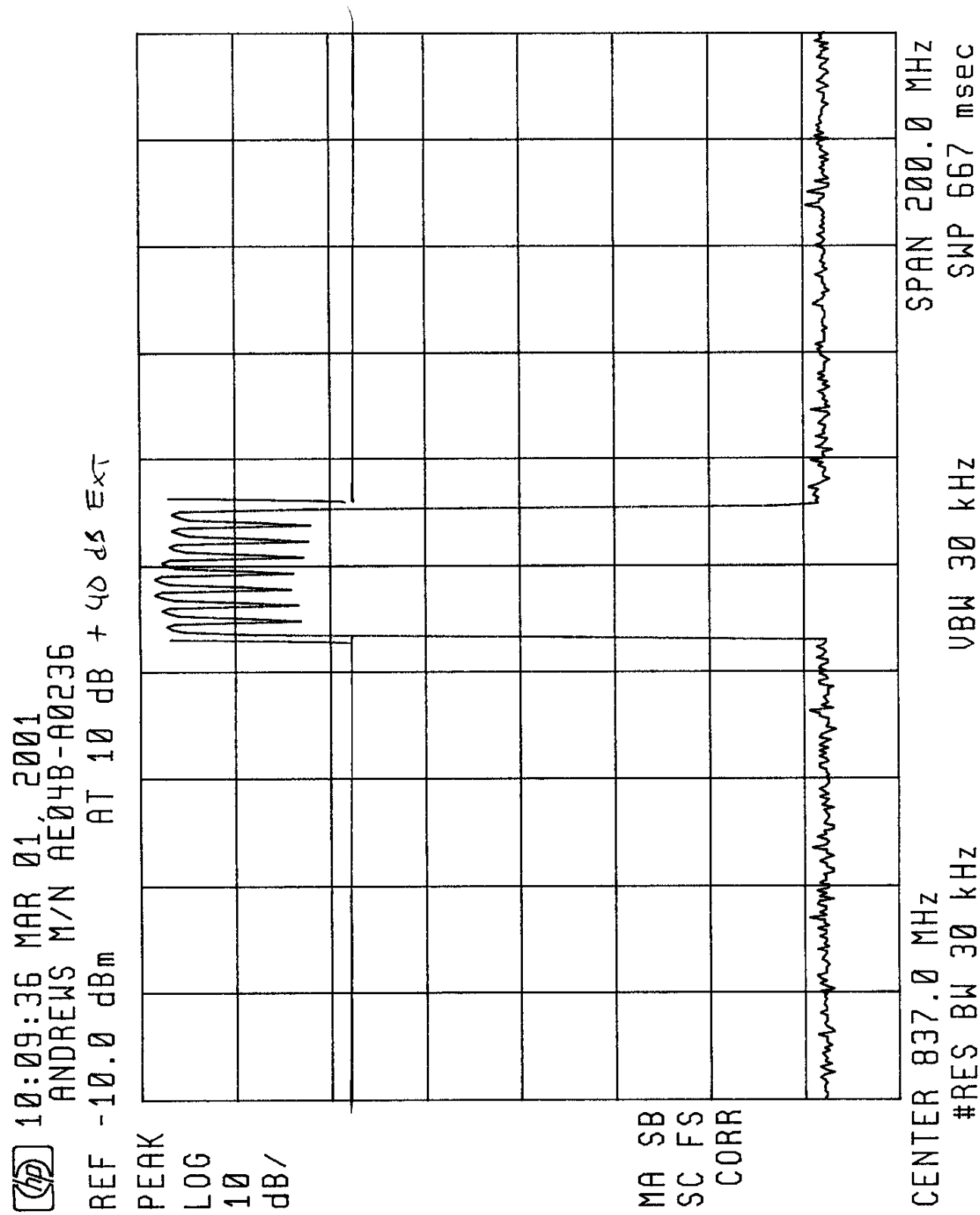
SWP 167 msec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dB/
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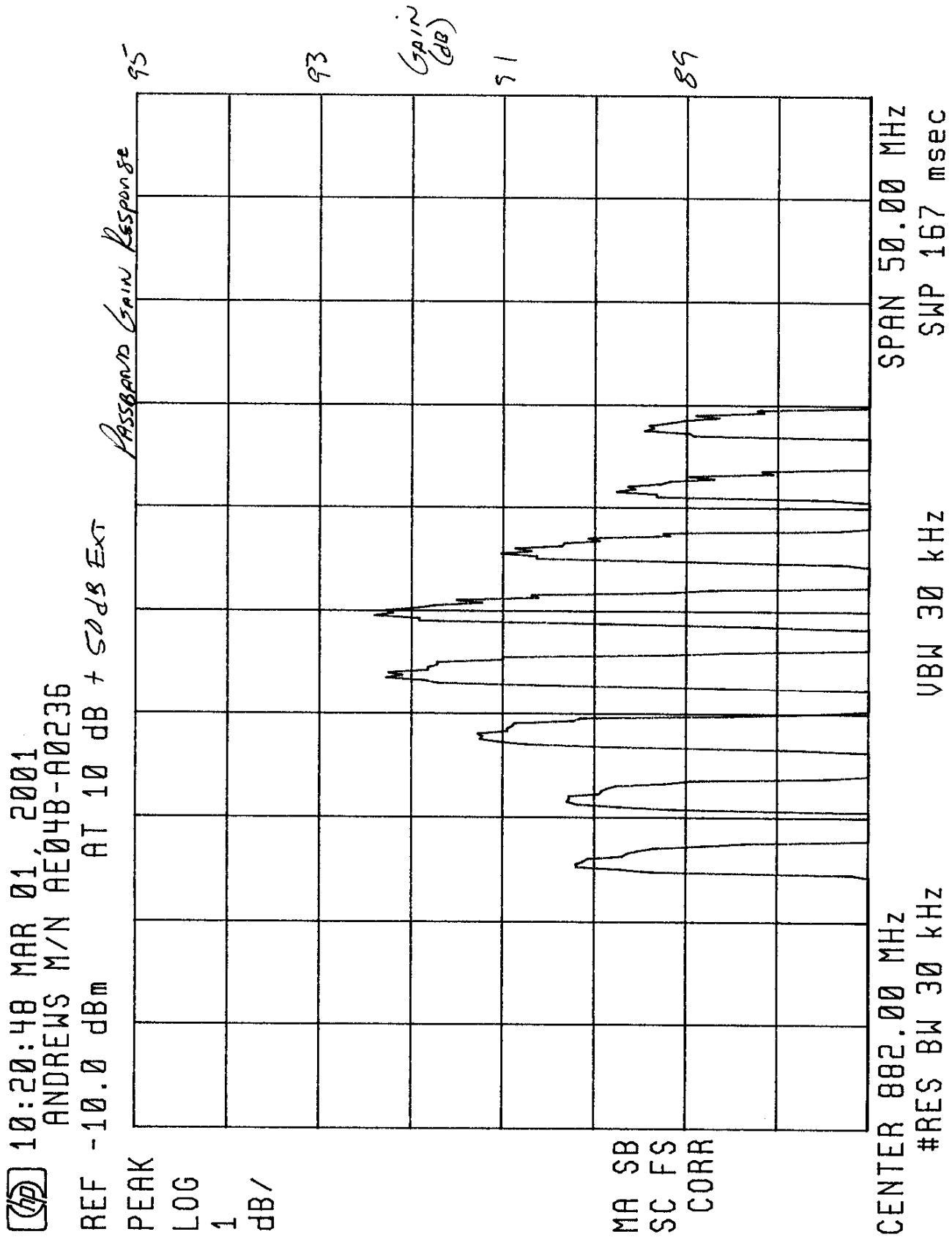
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(Gain (dB))
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93
91
89
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dB/
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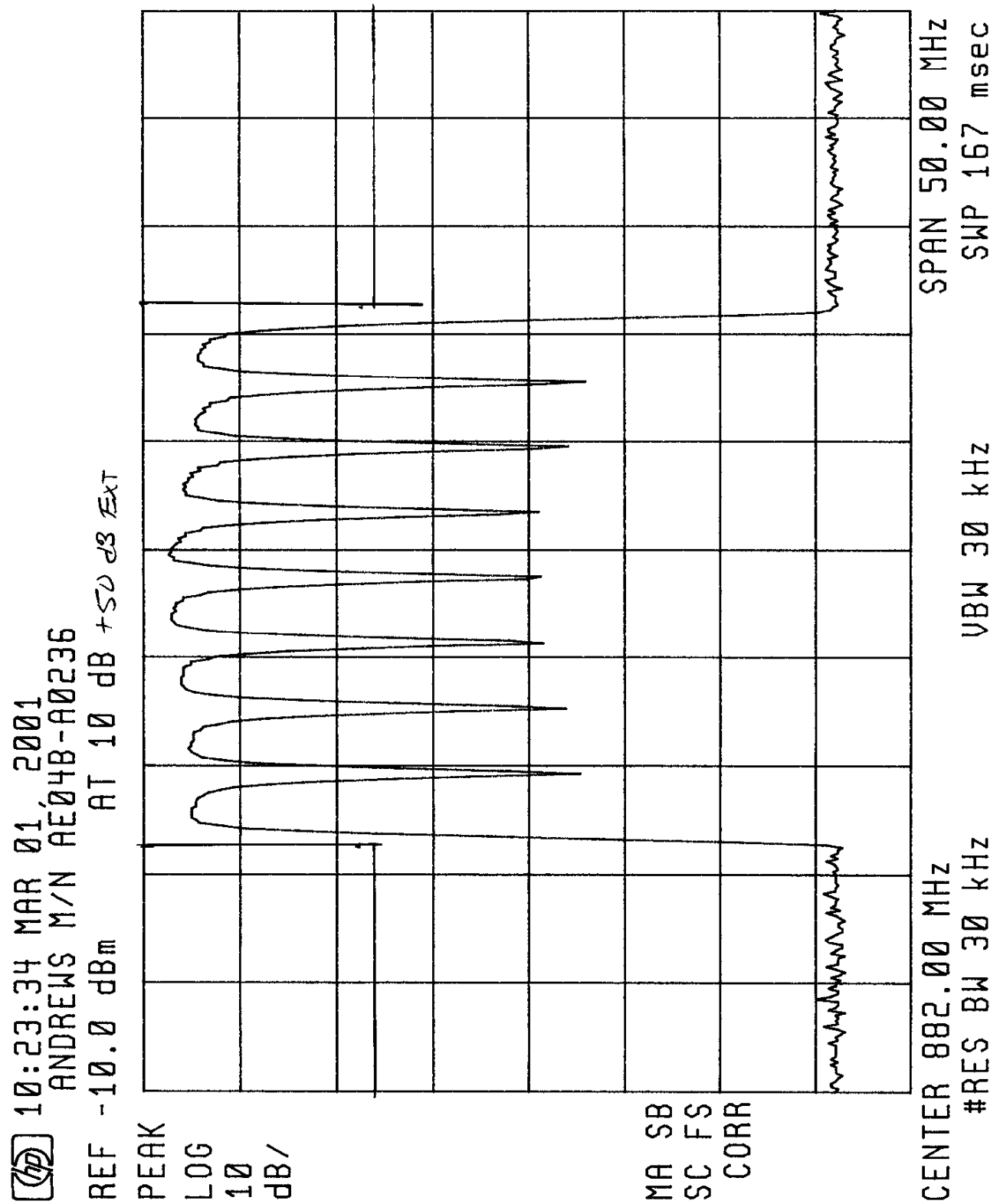
SPAN 50.00 MHz
SWP 167 msec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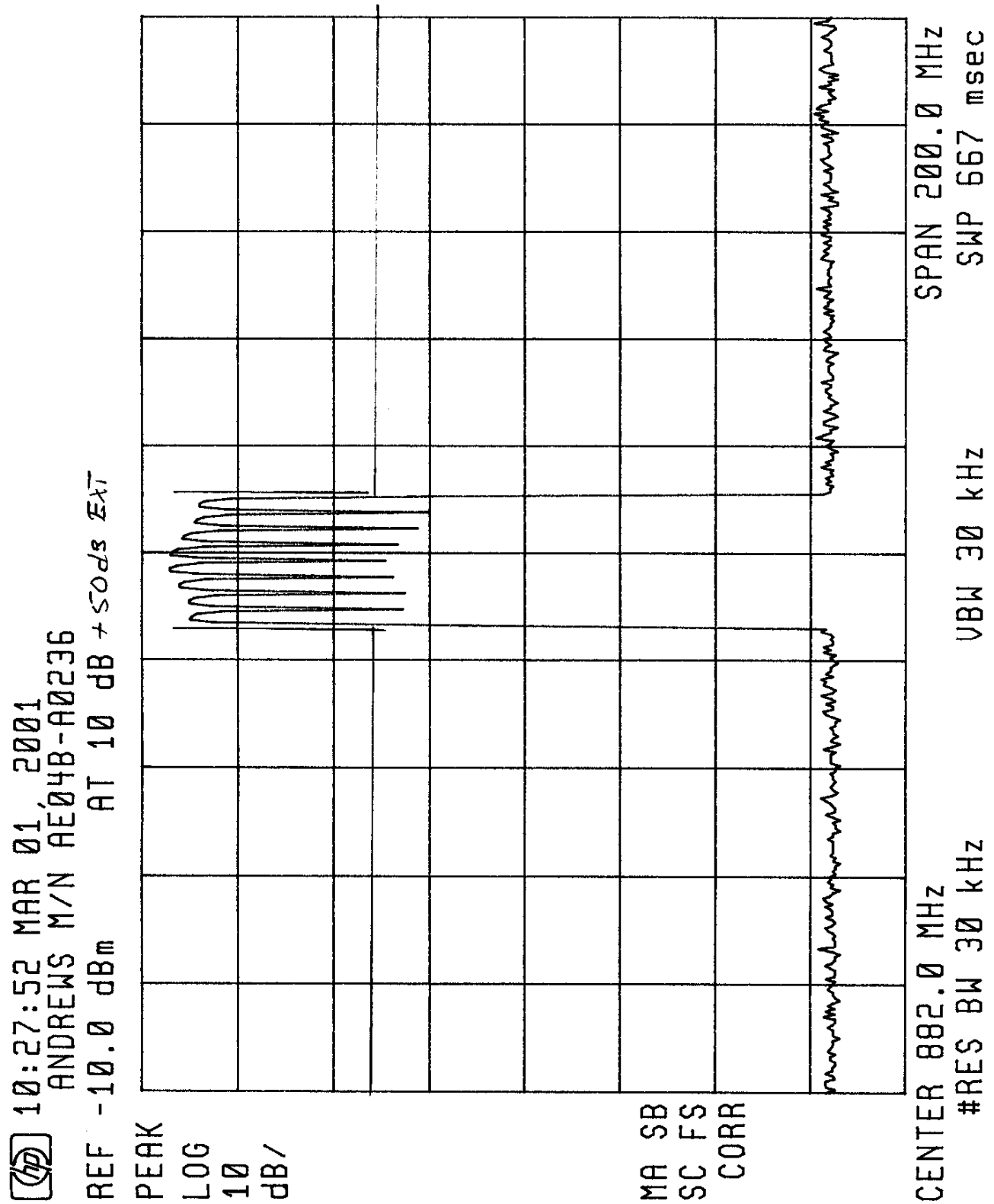
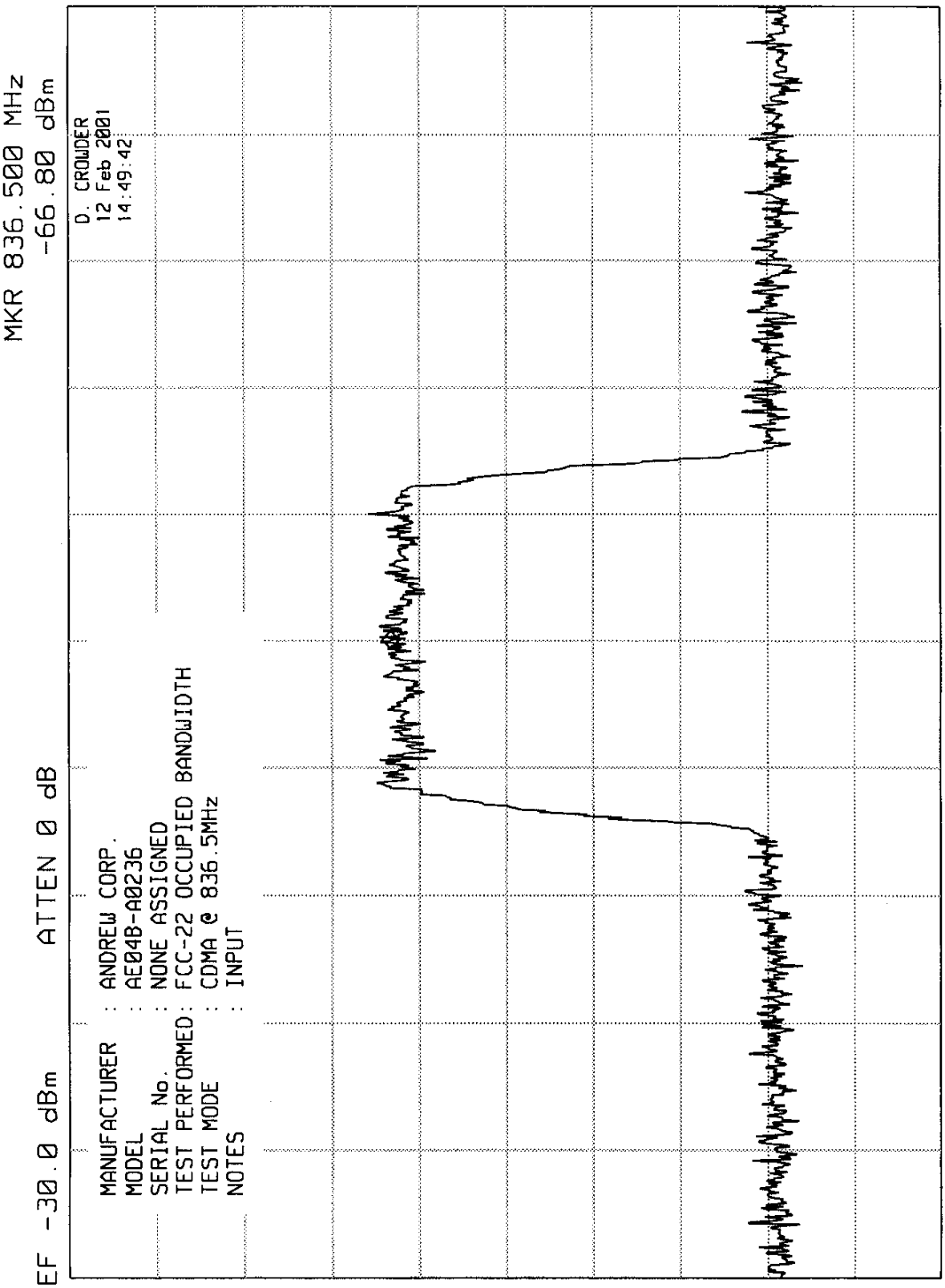
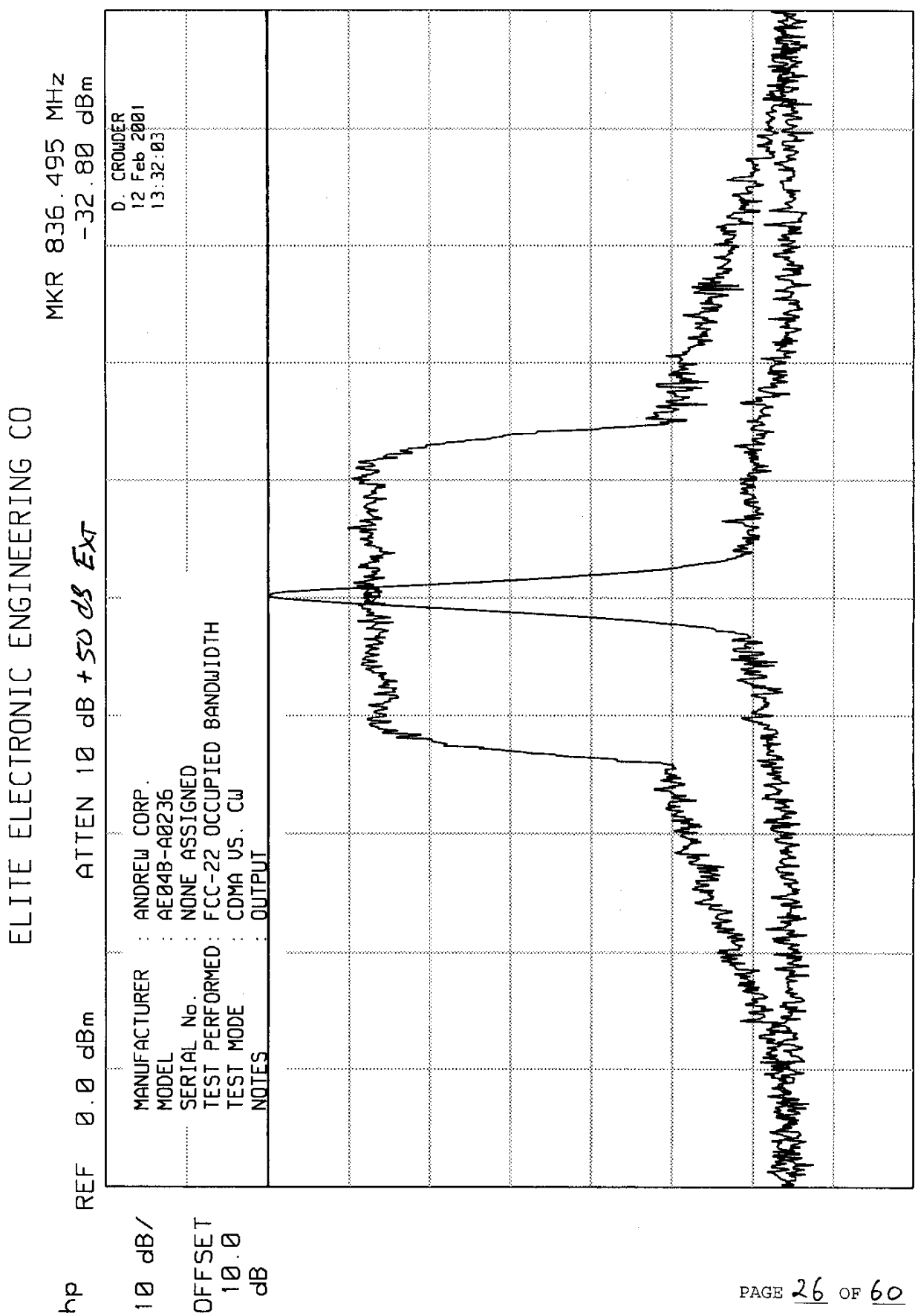
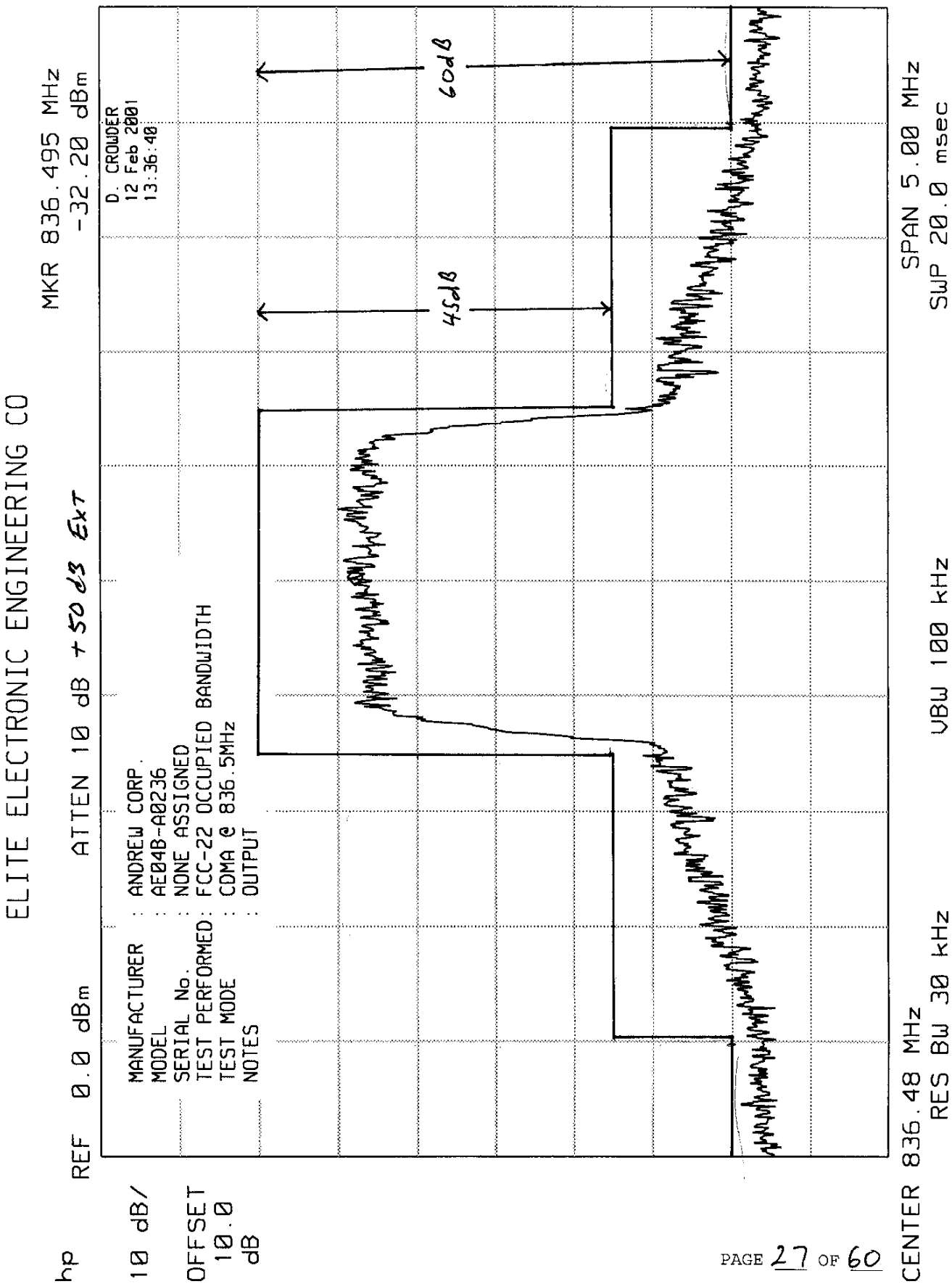
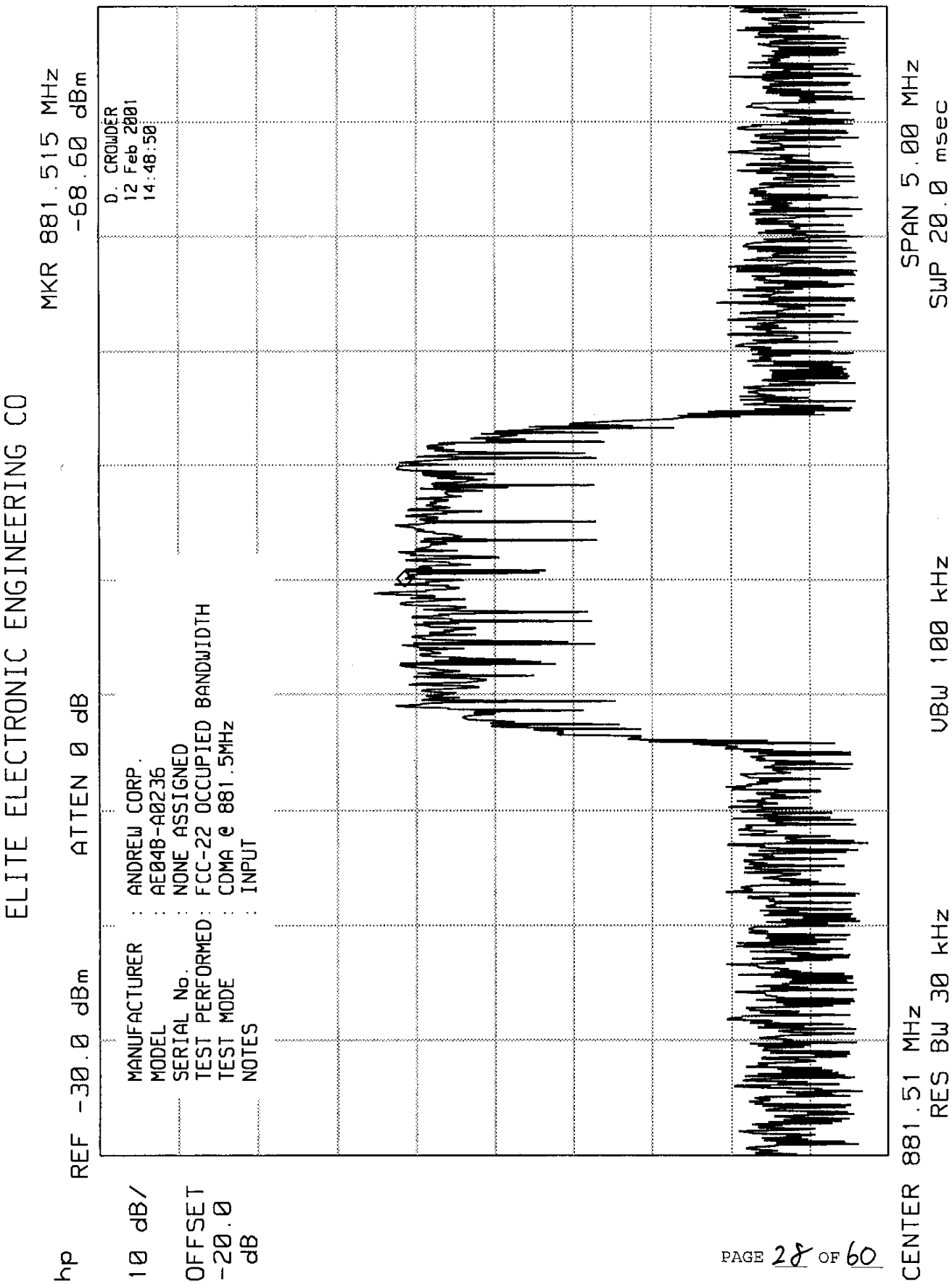
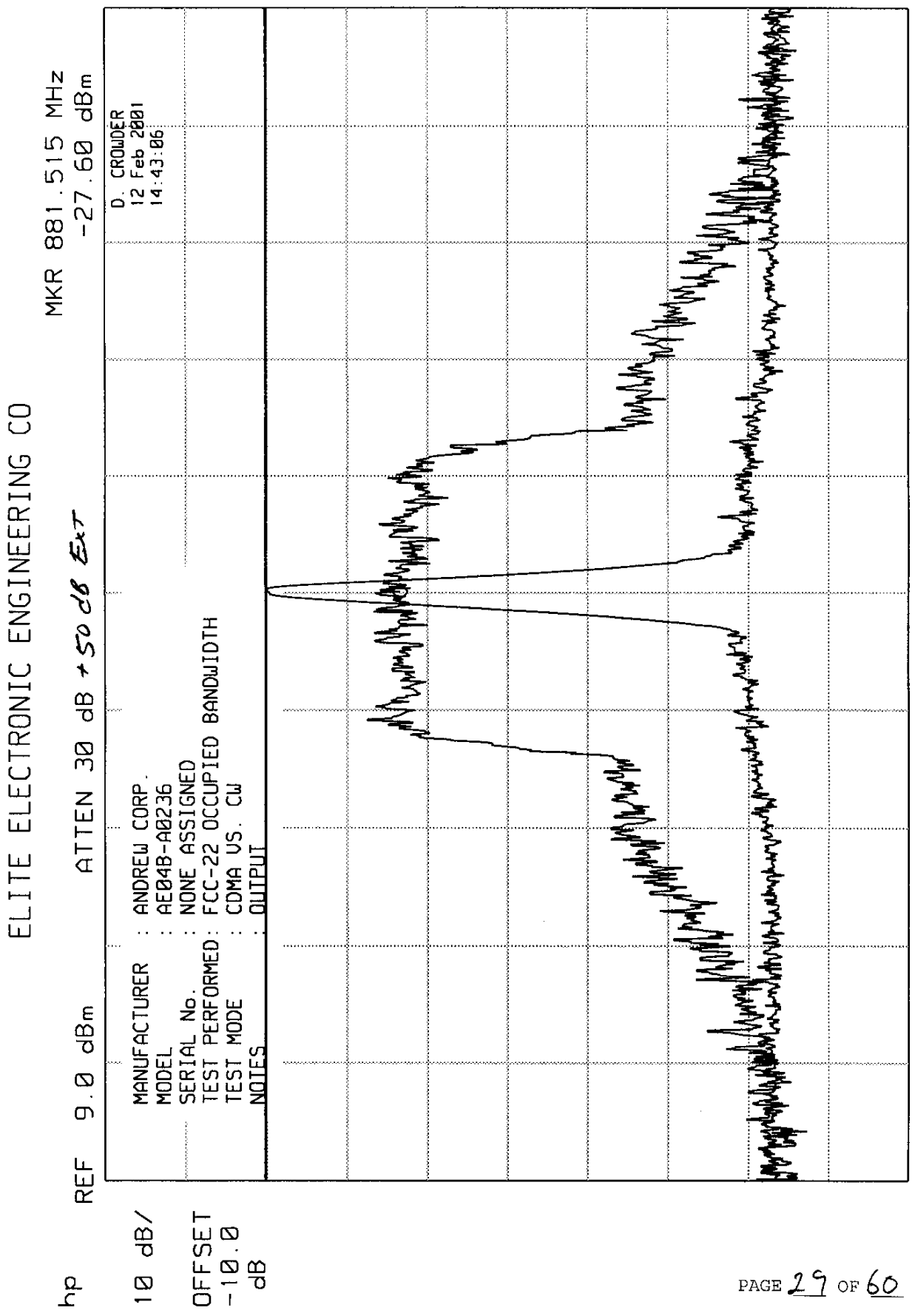

10:27:52 MAR 01, 2001
ANDREWS M/N AE04B-A0236
REF -10.0 dBm
AT 10 dB +50ds Ext
PEAK
LOG
10
dB/
MA SB
SC FS
CORR
CENTER 882.0 MHz
#RES BW 30 kHz
VBW 30 kHz
SPAN 200.0 MHz
SWP 667 msec

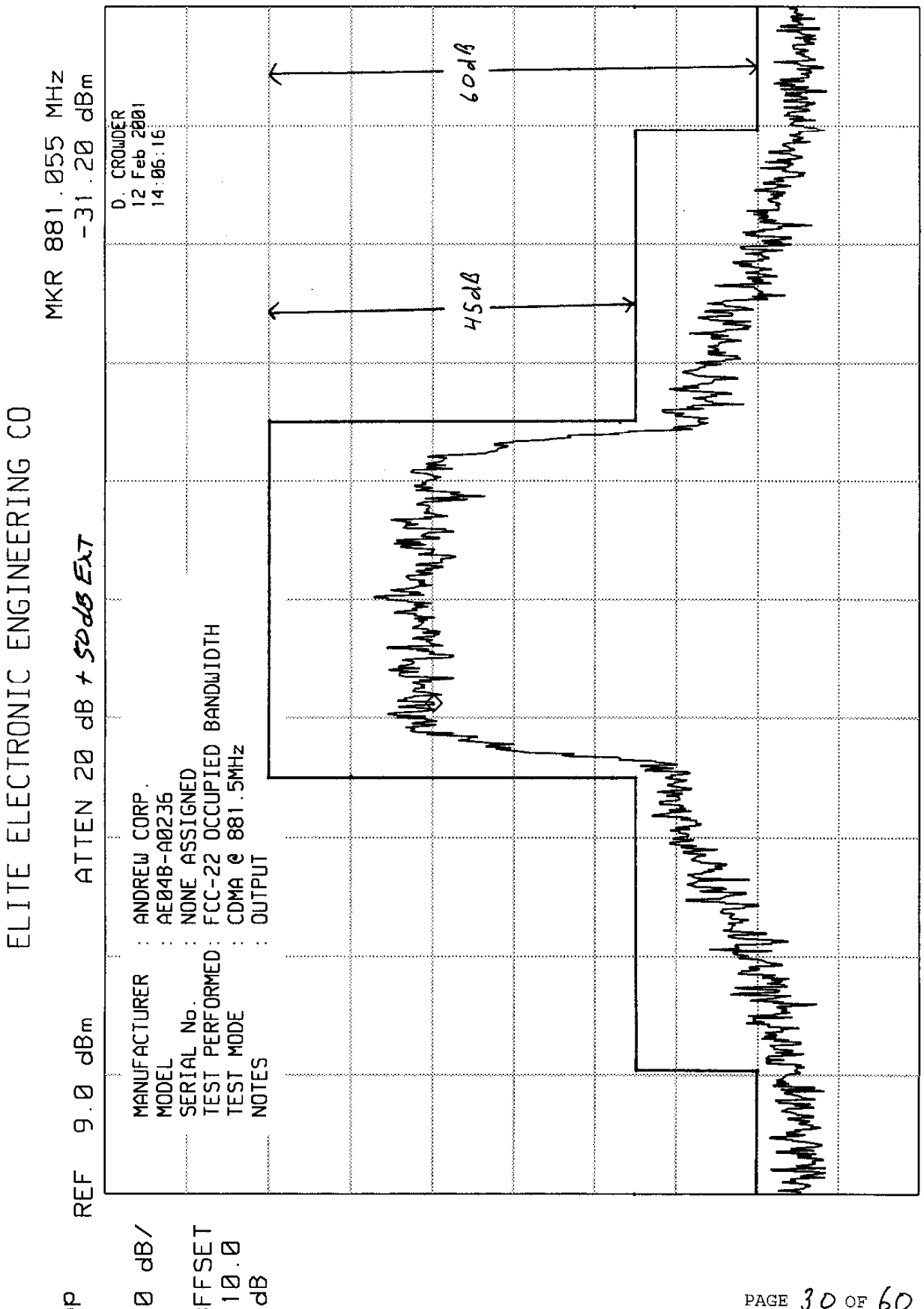

ELITE ELECTRONIC ENGINEERING CO
hp
REF -30.0 dBm
ATTEN 0 dB
MKR 836.500 MHz
-66.80 dBm
10 dB/
OFFSET
-20.0
dB
MANUFACTURER : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 OCCUPIED BANDWIDTH
TEST MODE : CDMA @ 836.5MHz
NOTES : INPUT
D. CROWDER
12 Feb 2001
14:49:42
CENTER 836.50 MHz
RES BW 30 kHz
VBW 100 kHz
SPAN 5.00 MHz
SWP 20.0 msec

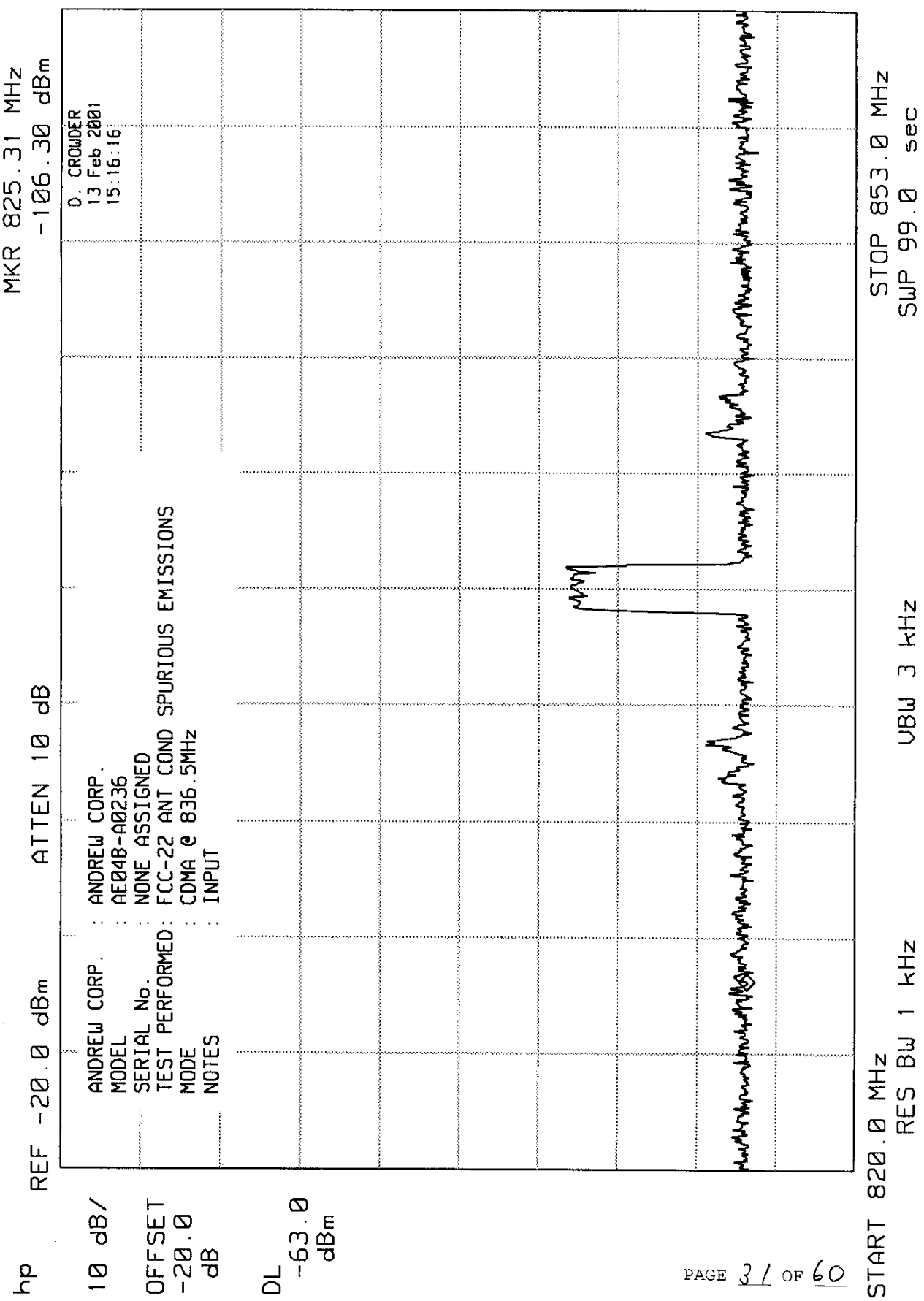

hp
ELITE ELECTRONIC ENGINEERING CO
REF 0.0 dBm
ATTEN 10 dB + 50 dB Ext
MKR 836.495 MHz
-32.80 dBm
10 dB/
OFFSET
10.0
dB
MANUFACTURER : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 OCCUPIED BANDWIDTH
TEST MODE : CDMA VS. CW
NOTES : OUTPUT
D. CROWDER
12 Feb 2001
13:32:03
CENTER 836.48 MHz
RES BW 30 kHz
VBW 100 kHz
SPAN 5.00 MHz
SWP 20.0 msec

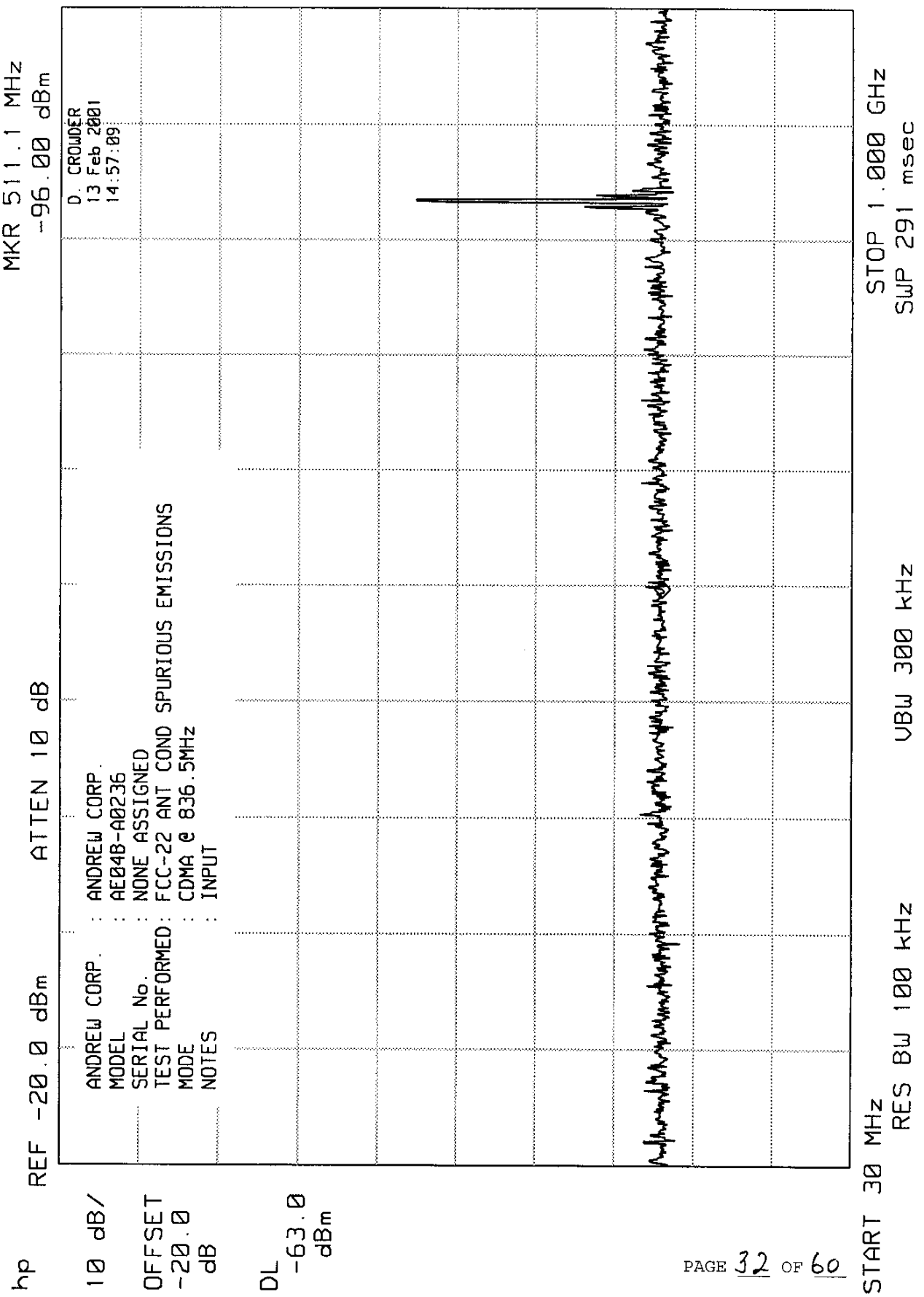

ELITE ELECTRONIC ENGINEERING CO
hp
REF 0.0 dBm
ATTEN 10 dB +50 d3 Ext
MKR 836.495 MHz
-32.20 dBm
10 dB/
OFFSET
10.0
dB
MANUFACTURER : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 OCCUPIED BANDWIDTH
TEST MODE : CDMA @ 836.5MHz
NOTES : OUTPUT
D. CROWDER
12 Feb 2001
13:36:40
60dB
45dB
CENTER 836.48 MHz
RES BW 30 kHz
VBW 100 kHz
SPAN 5.00 MHz
SWP 20.0 msec

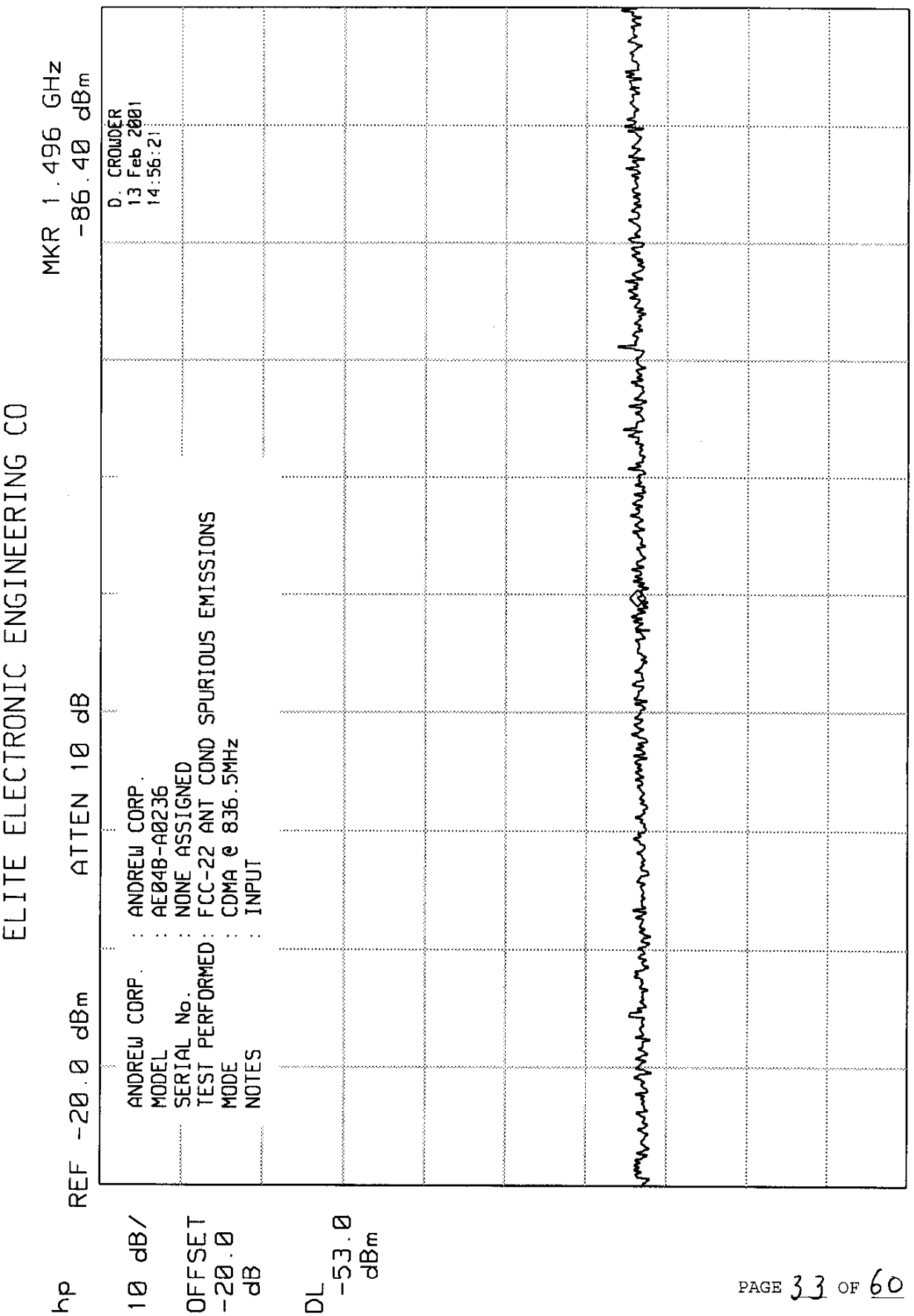

ELITE ELECTRONIC ENGINEERING CO
hp
REF -30.0 dBm
ATTEN 0 dB
MKR 881.515 MHz
-68.60 dBm
10 dB/
OFFSET
-20.0
dB
D. CROWDER
12 Feb 2001
14:48:50
MANUFACTURER : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 OCCUPIED BANDWIDTH
TEST MODE : CDMA @ 881.5MHz
NOTES : INPUT
CENTER 881.51 MHz
RES BW 30 kHz
VBW 100 kHz
SPAN 5.00 MHz
SWP 20.0 msec

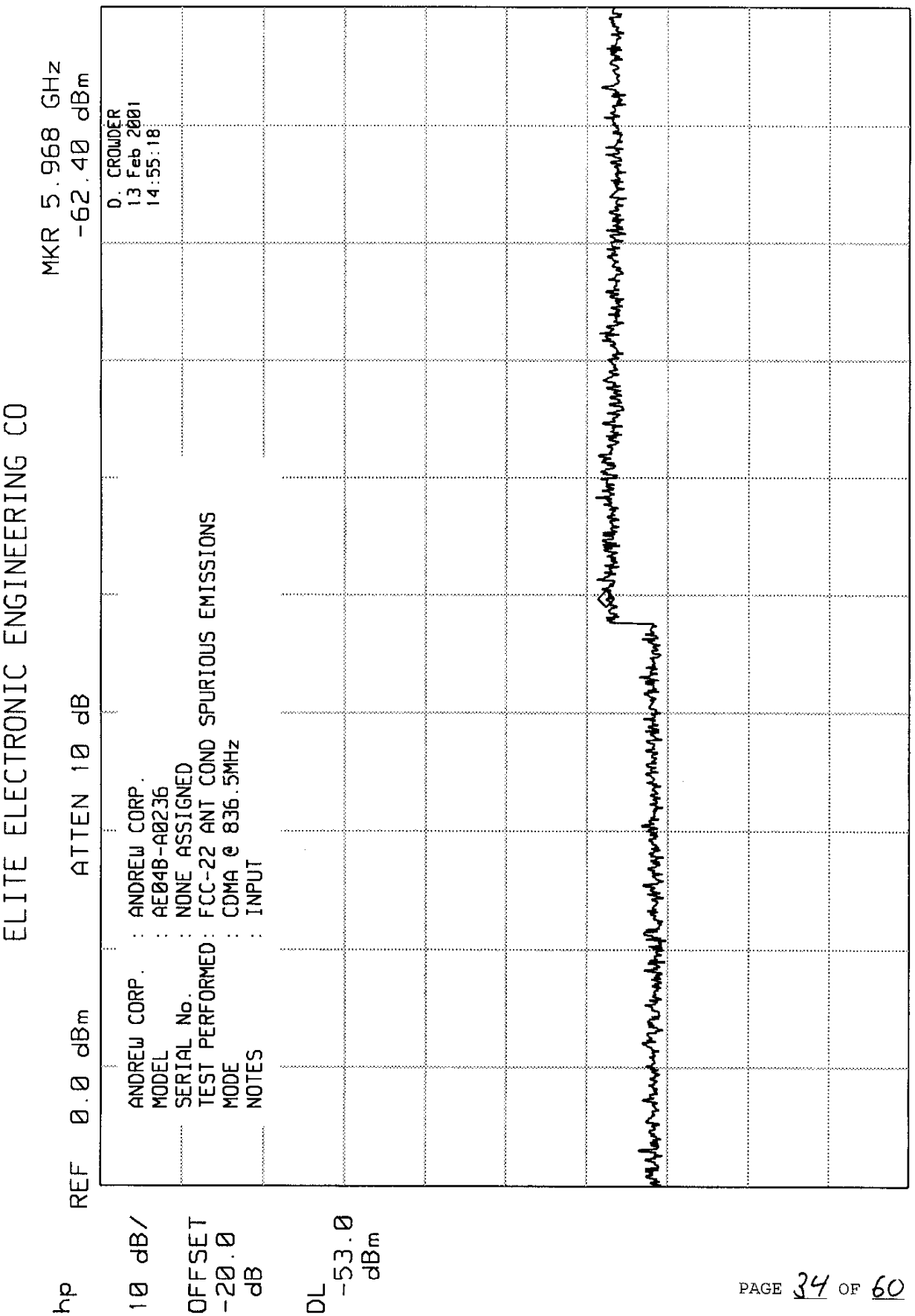

ELITE ELECTRONIC ENGINEERING CO
hp
REF 9.0 dBm
ATTEN 30 dB + 50 dB Ext
MKR 881.515 MHz
-27.60 dBm
10 dB/
OFFSET
-10.0
dB
MANUFACTURER : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 OCCUPIED BANDWIDTH
TEST MODE : CDMA VS. CW
NOTES : OUTPUT
D. CROWDER
12 Feb 2001
14:43:06
CENTER 881.51 MHz
RES BW 30 kHz
VBW 100 kHz
SPAN 5.00 MHz
SWP 20.0 msec

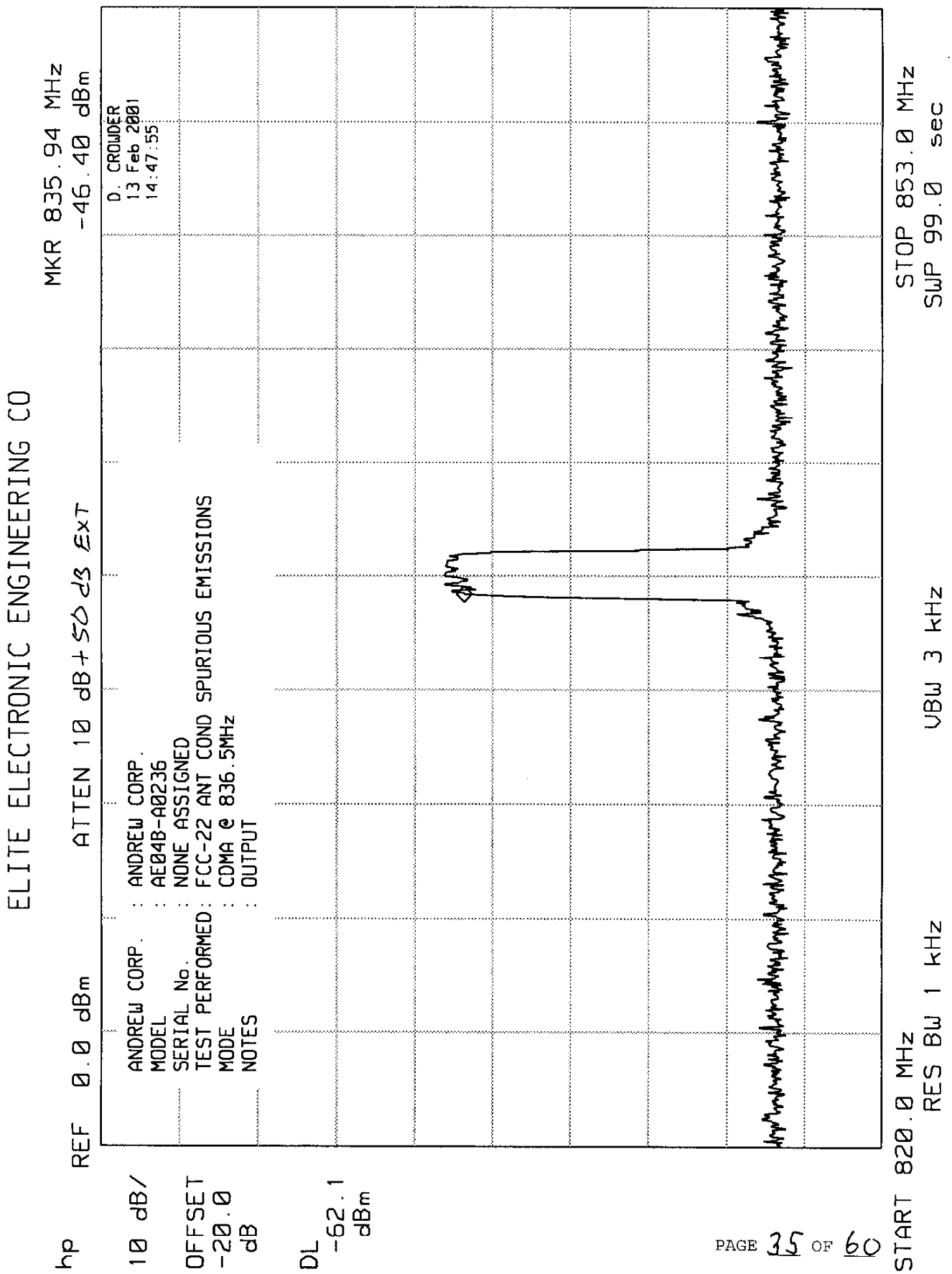

ELITE ELECTRONIC ENGINEERING CO
hp
REF 9.0 dBm
ATTEN 20 dB + 50dB Ext
MKR 881.055 MHz
-31.20 dBm
10 dB/
OFFSET
10.0
dB
D. CROWDER
12 Feb 2001
14:06:16
60dB
45dB
MANUFACTURER : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 OCCUPIED BANDWIDTH
TEST MODE : CDMA @ 881.5MHz
NOTES : OUTPUT
CENTER 881.50 MHz
RES BW 30 kHz
VBW 100 kHz
SPAN 5.00 MHz
SWP 20.0 msec

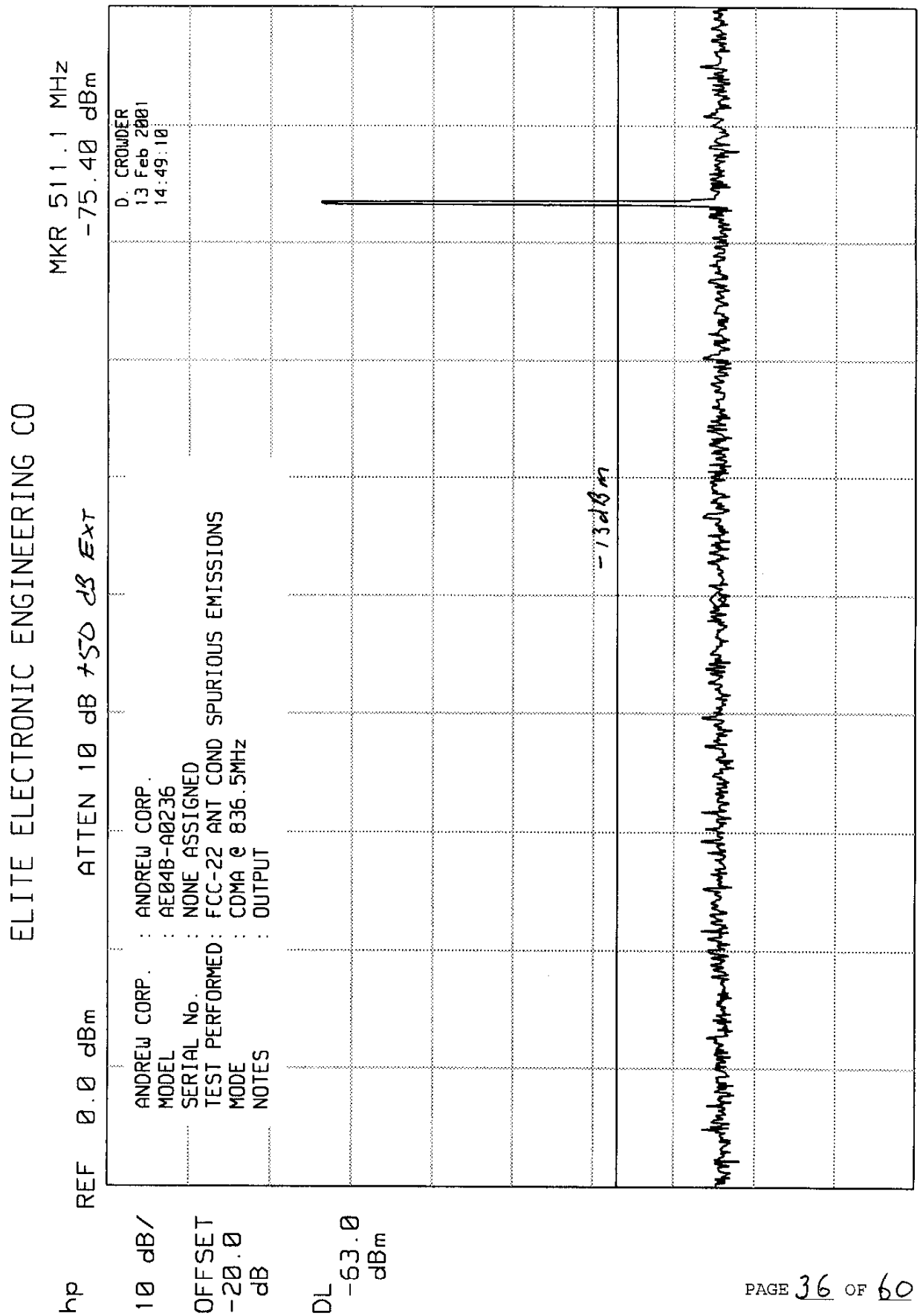

ELITE ELECTRONIC ENGINEERING CO
hp
REF -20.0 dBm
ATTEN 10 dB
MKR 825.31 MHz
-106.30 dBm
10 dB/
OFFSET
-20.0
dB
DL
-63.0
dBm
ANDREW CORP. : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 ANT COND SPURIOUS EMISSIONS
MODE : CDMA @ 836.5MHz
NOTES : INPUT
D. CROWDER
13 Feb 2001
15:16:16
START 820.0 MHz
RES BW 1 kHz
VBW 3 kHz
STOP 853.0 MHz
SWP 99.0 sec


ELITE ELECTRONIC ENGINEERING CO
hp
REF -20.0 dBm
ATTEN 10 dB
MKR 511.1 MHz
-96.00 dBm
10 dB/
OFFSET
-20.0
dB
DL
-63.0
dBm
ANDREW CORP. : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 ANT COND SPURIOUS EMISSIONS
MODE : CDMA @ 836.5MHz
NOTES : INPUT
D. CROWDER
13 Feb 2001
14:57:09
START 30 MHz
RES BW 100 kHz
VBW 300 kHz
STOP 1.000 GHz
SWP 291 msec

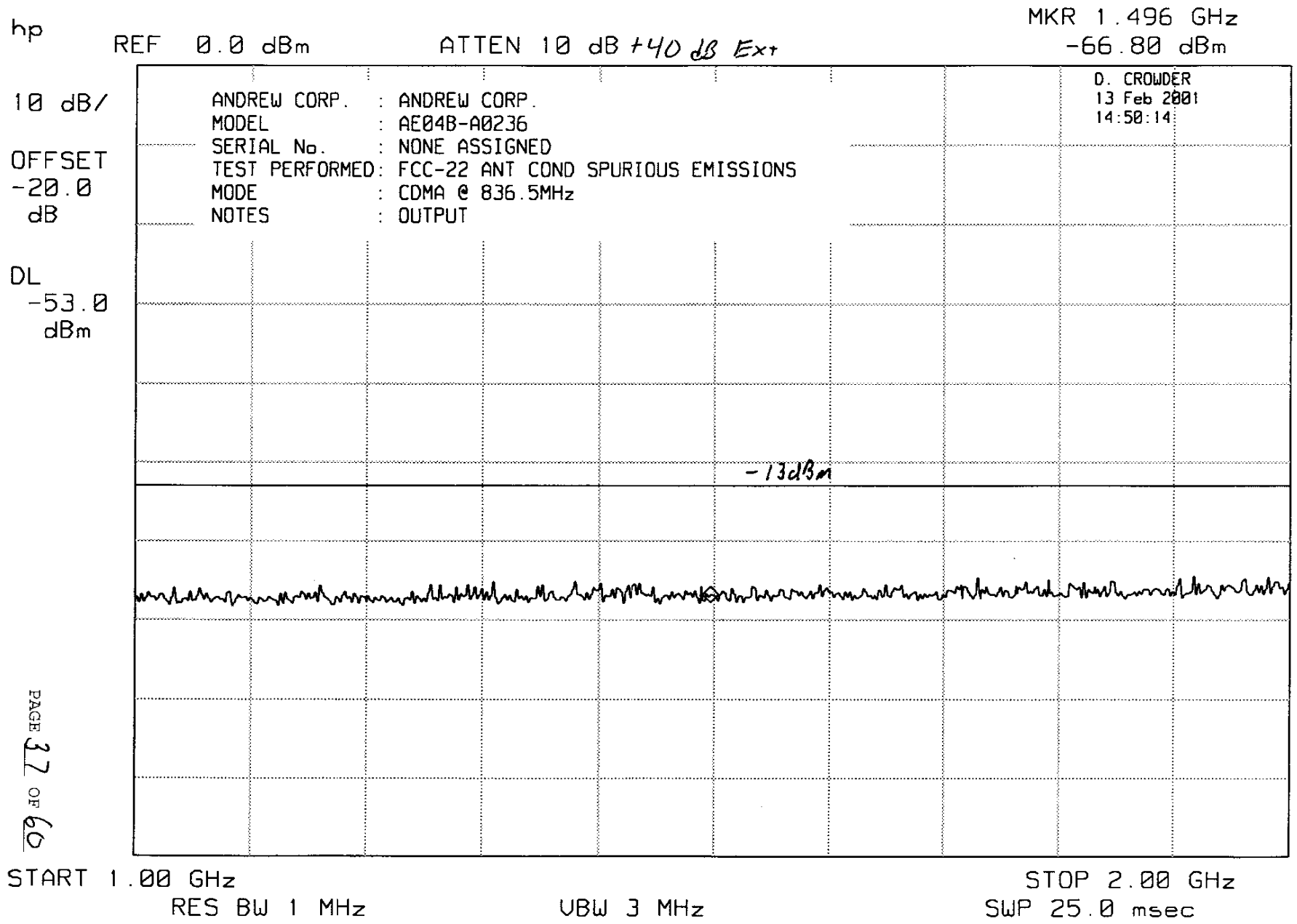

ELITE ELECTRONIC ENGINEERING CO
hp
REF -20.0 dBm
ATTEN 10 dB
MKR 1.496 GHz
-86.40 dBm
10 dB/
OFFSET
-20.0
dB
DL
-53.0
dBm
ANDREW CORP. : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 ANT COND SPURIOUS EMISSIONS
MODE : CDMA @ 836.5MHz
NOTES : INPUT
D. CROWDER
13 Feb 2001
14:56:21
START 1.00 GHz
RES BW 1 MHz
VBW 3 MHz
STOP 2.00 GHz
SWP 25.0 msec

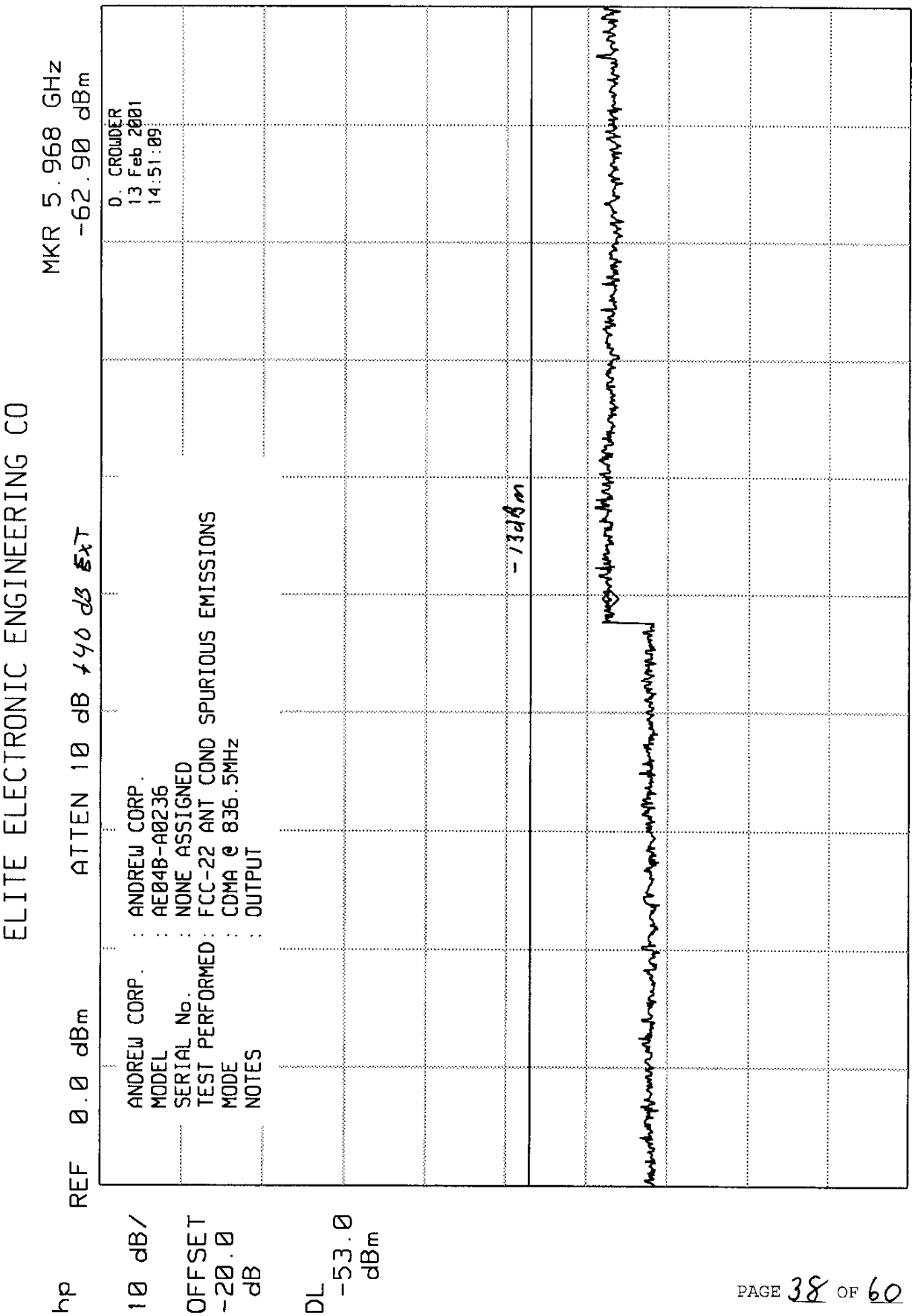

hp
ELITE ELECTRONIC ENGINEERING CO
REF 0.0 dBm
ATTEN 10 dB
MKR 5.968 GHz
-62.40 dBm
10 dB/
OFFSET
-20.0
dB
DL
-53.0
dBm
ANDREW CORP. : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 ANT COND SPURIOUS EMISSIONS
MODE : CDMA @ 836.5MHz
NOTES : INPUT
D. CROWDER
13 Feb 2001
14:55:18
START 2.00 GHz
RES BW 1 MHz
VBW 3 MHz
STOP 10.00 GHz
SWP 200 msec

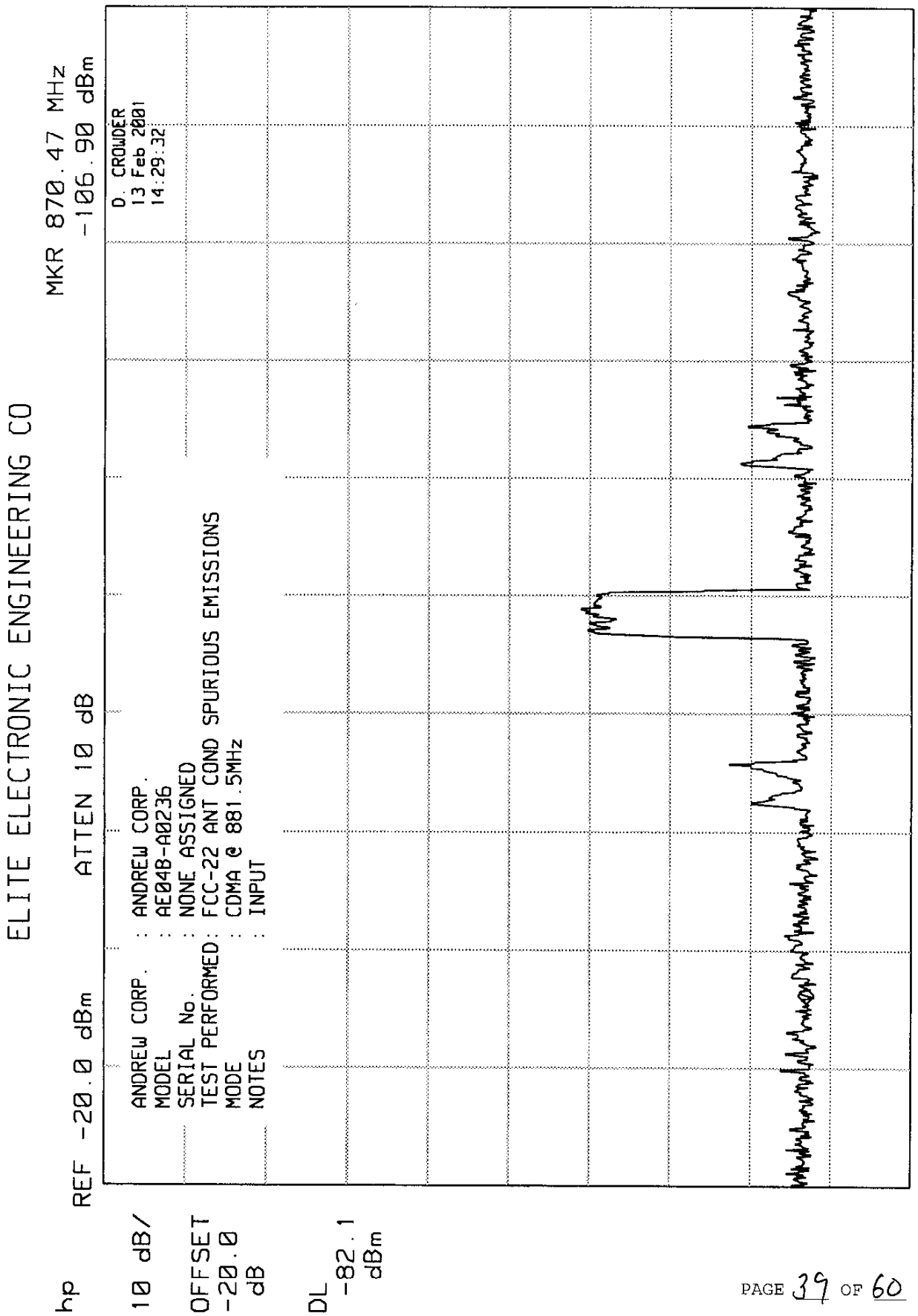

ELITE ELECTRONIC ENGINEERING CO
hp
REF 0.0 dBm
ATTEN 10 dB + 50 dB Ext
MKR 835.94 MHz
-46.40 dBm
10 dB/
OFFSET
-20.0
dB
DL
-62.1
dBm
ANDREW CORP. : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 ANT COND SPURIOUS EMISSIONS
MODE : CDMA @ 836.5MHz
NOTES : OUTPUT
D. CROWDER
13 Feb 2001
14:47:55
START 820.0 MHz
RES BW 1 kHz
VBW 3 kHz
STOP 853.0 MHz
SWP 99.0 sec

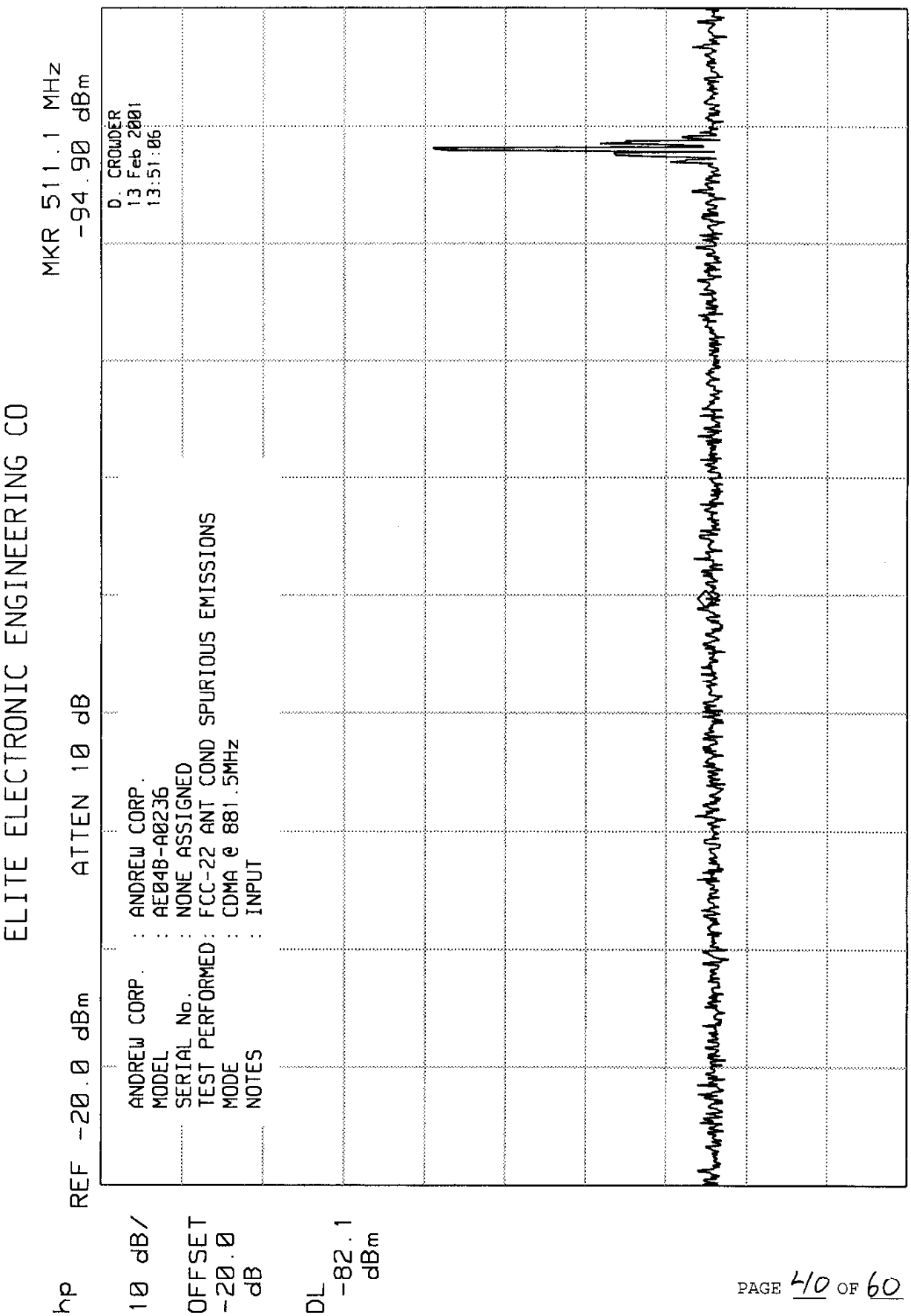

ELITE ELECTRONIC ENGINEERING CO
hp
REF 0.0 dBm
ATTEN 10 dB +50 dB Ext
MKR 511.1 MHz
-75.40 dBm
10 dB/
OFFSET
-20.0
dB
DL
-63.0
dBm
D. CROWDER
13 Feb 2001
14:49:10
ANDREW CORP. : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 ANT COND SPURIOUS EMISSIONS
MODE : CDMA @ 836.5MHz
NOTES : OUTPUT
-13dBm
START 30 MHz
RES BW 100 kHz
VBW 300 kHz
STOP 1.000 GHz
SWP 291 msec

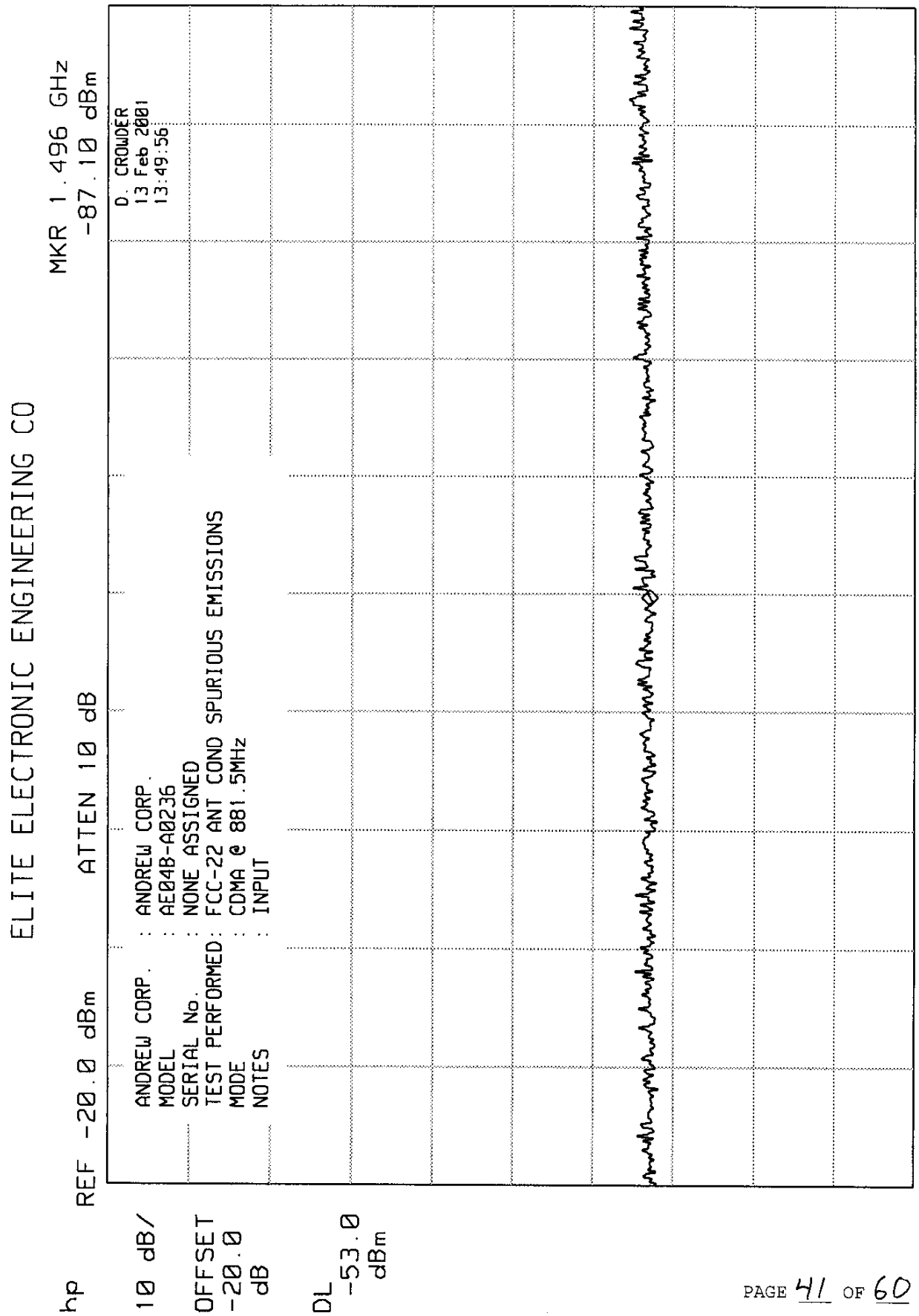
ELITE ELECTRONIC ENGINEERING CO

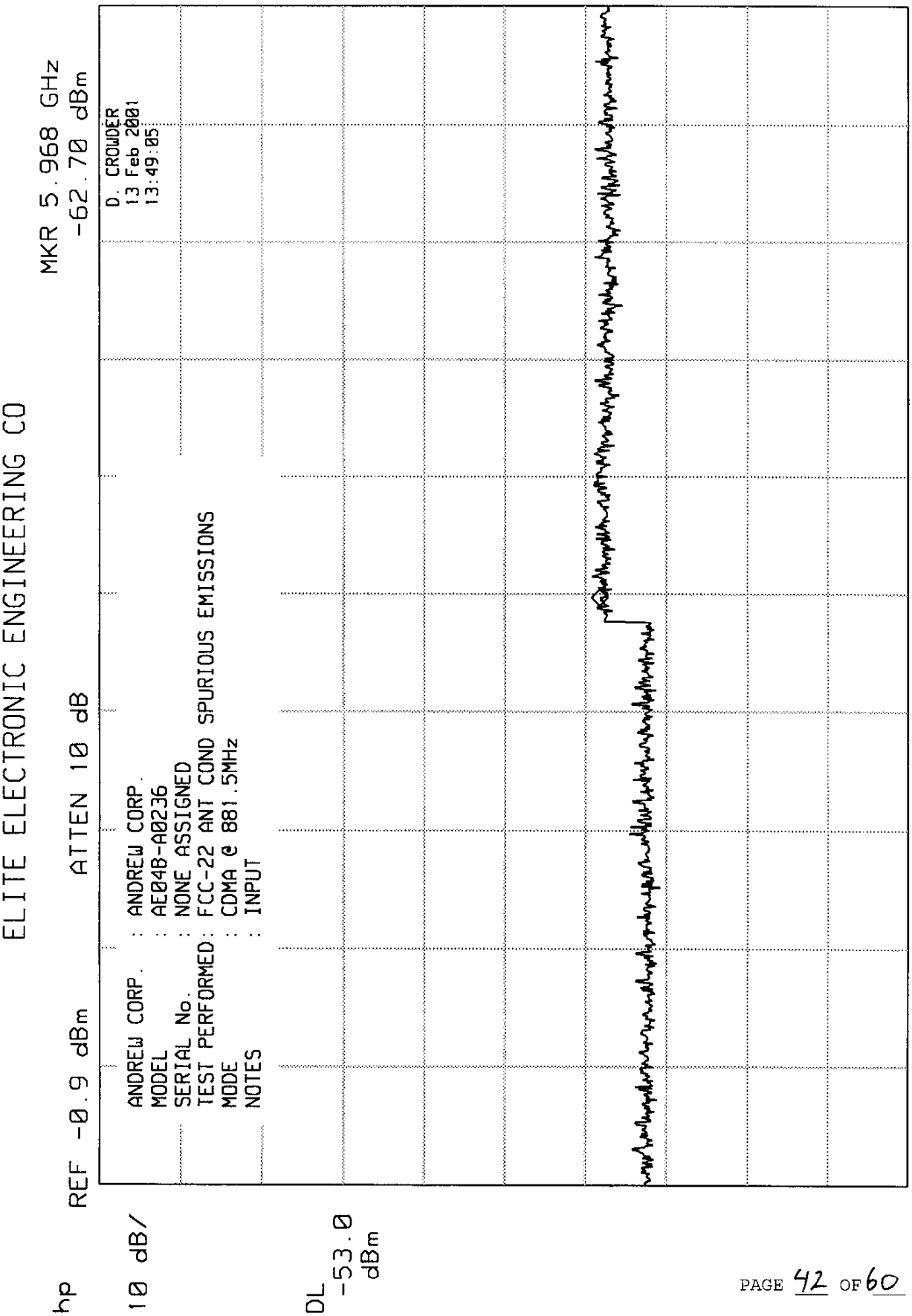


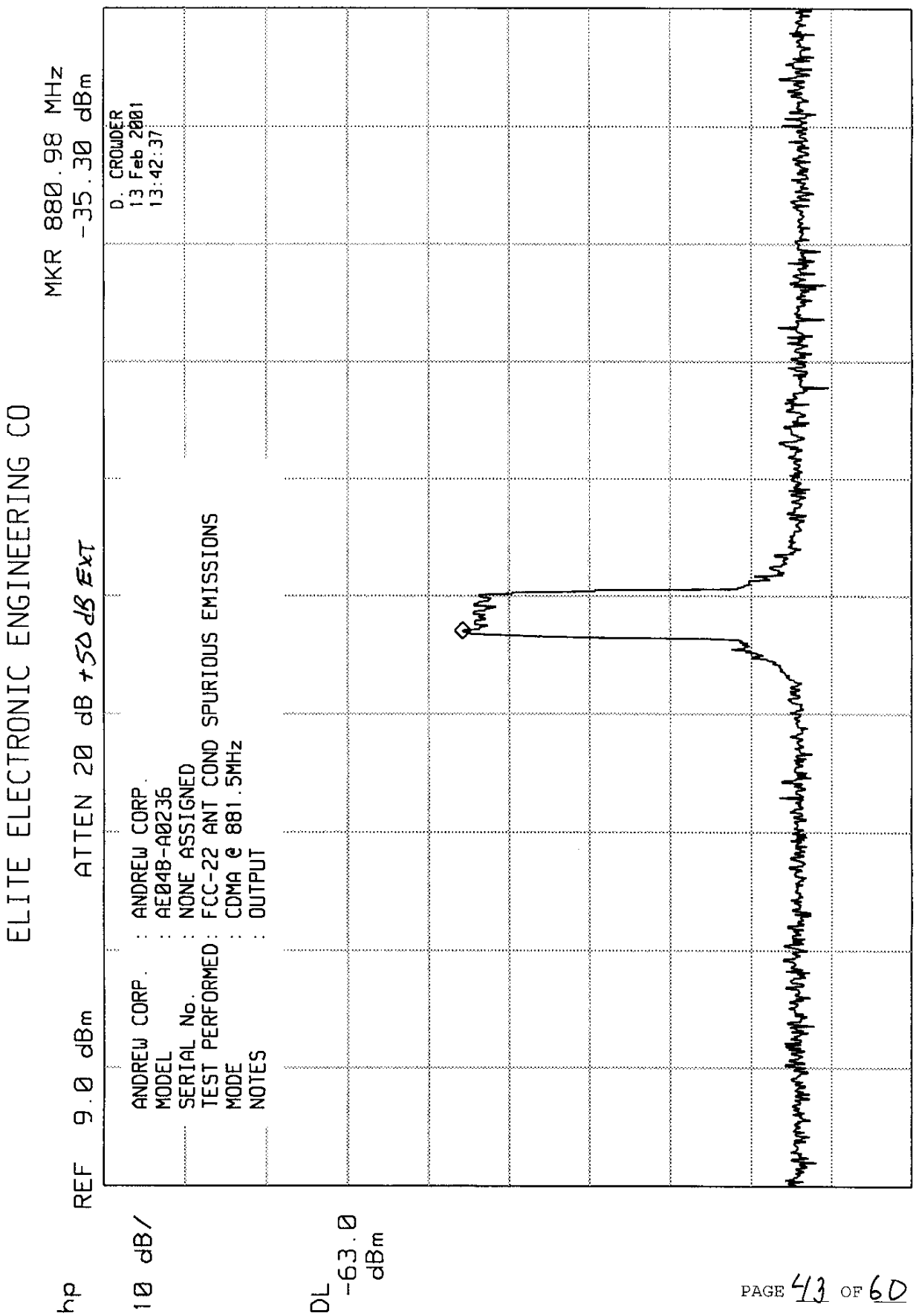

ELITE ELECTRONIC ENGINEERING CO
hp
REF 0.0 dBm
ATTEN 10 dB
MKR 5.968 GHz
-62.90 dBm
10 dB/
OFFSET
-20.0
dB
DL
-53.0
dBm
ANDREW CORP. : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 ANT COND SPURIOUS EMISSIONS
MODE : CDMA @ 836.5MHz
NOTES : OUTPUT
D. CROWDER
13 Feb 2001
14:51:09
-13dBm
START 2.00 GHz
RES BW 1 MHz
VBW 3 MHz
STOP 10.00 GHz
SWP 200 msec

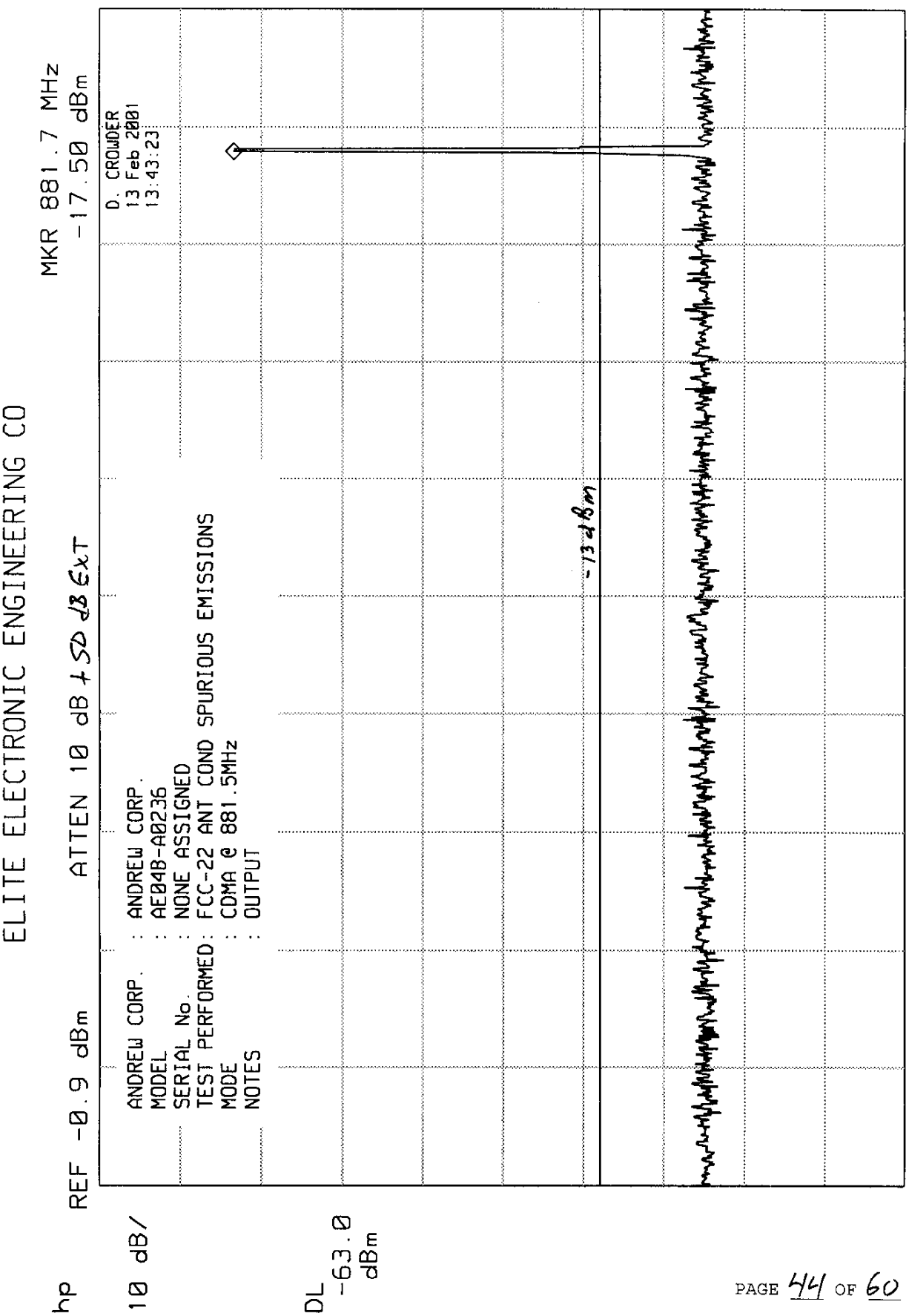

hp
ELITE ELECTRONIC ENGINEERING CO
REF -20.0 dBm
ATTEN 10 dB
MKR 870.47 MHz
-106.90 dBm
10 dB/
OFFSET
-20.0
dB
DL
-82.1
dBm
ANDREW CORP. : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 ANT COND SPURIOUS EMISSIONS
MODE : CDMA @ 881.5MHz
NOTES : INPUT
D. CROWDER
13 Feb 2001
14:29:32
START 865.0 MHz
RES BW 1 kHz
VBW 3 kHz
STOP 899.0 MHz
SWP 102 sec

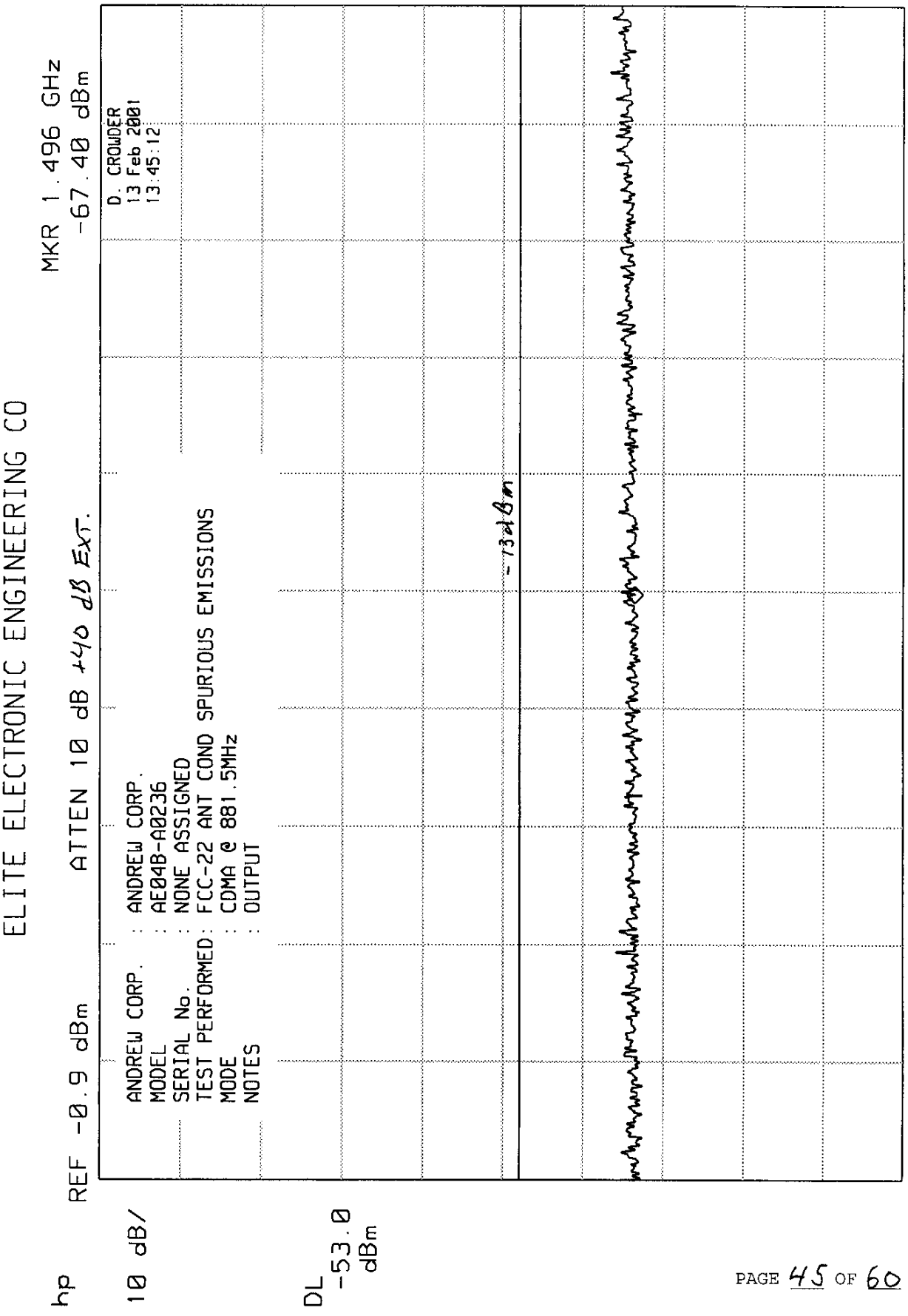

ELITE ELECTRONIC ENGINEERING CO
hp
REF -20.0 dBm
ATTEN 10 dB
MKR 511.1 MHz
-94.90 dBm
10 dB/
OFFSET
-20.0
dB
DL
-82.1
dBm
ANDREW CORP. : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 ANT COND SPURIOUS EMISSIONS
MODE : CDMA @ 881.5MHz
NOTES : INPUT
D. CROWDER
13 Feb 2001
13:51:06
START 30 MHz
RES BW 100 kHz
VBW 300 kHz
STOP 1.000 GHz
SWP 291 msec

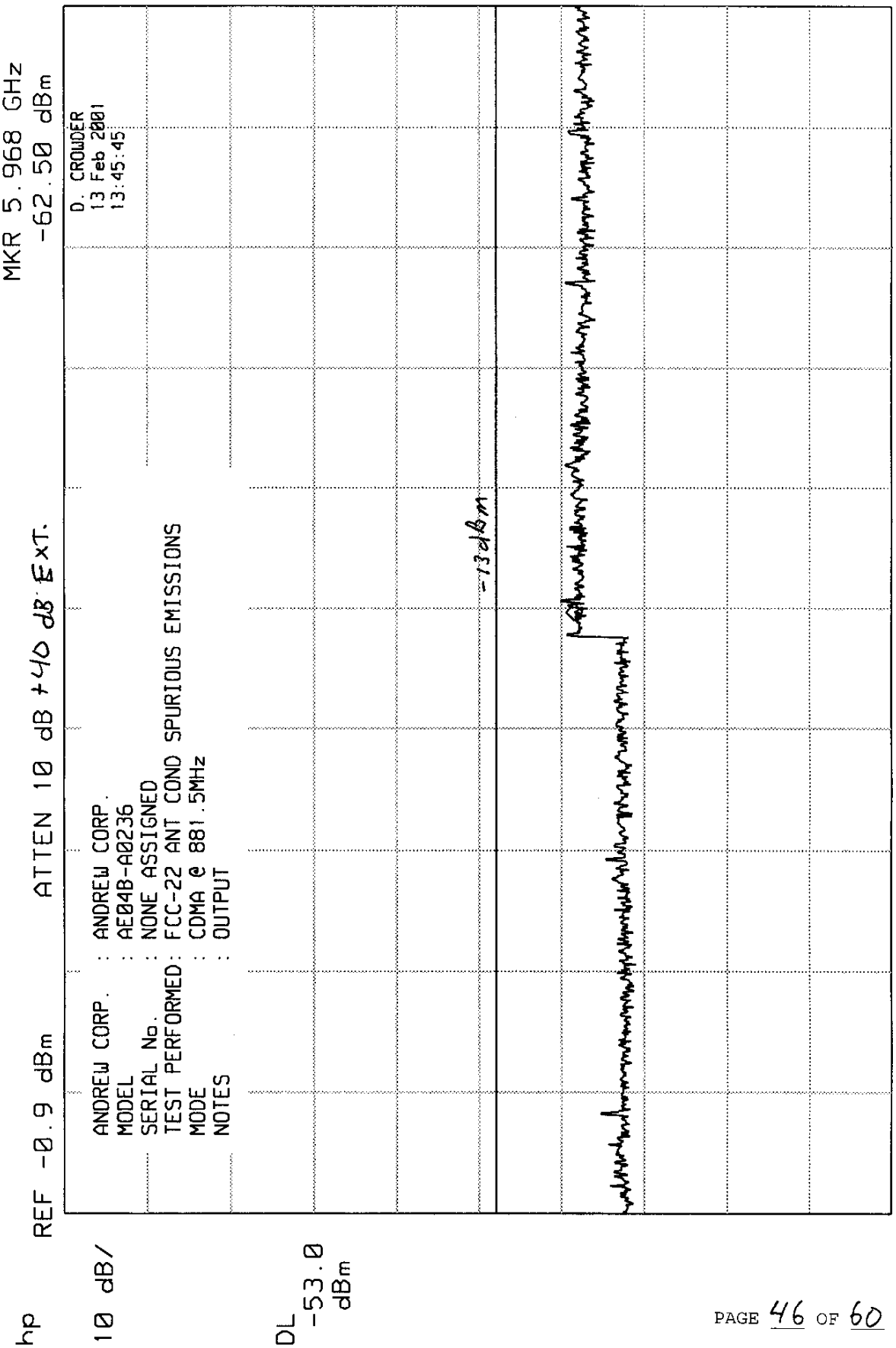

hp
ELITE ELECTRONIC ENGINEERING CO
REF -20.0 dBm
ATTEN 10 dB
MKR 1.496 GHz
-87.10 dBm
10 dB/
OFFSET
-20.0
dB
DL
-53.0
dBm
ANDREW CORP. : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 ANT COND SPURIOUS EMISSIONS
MODE : CDMA @ 881.5MHz
NOTES : INPUT
D. CROWDER
13 Feb 2001
13:49:56
START 1.00 GHz
RES BW 1 MHz
VBW 3 MHz
STOP 2.00 GHz
SWP 25.0 msec

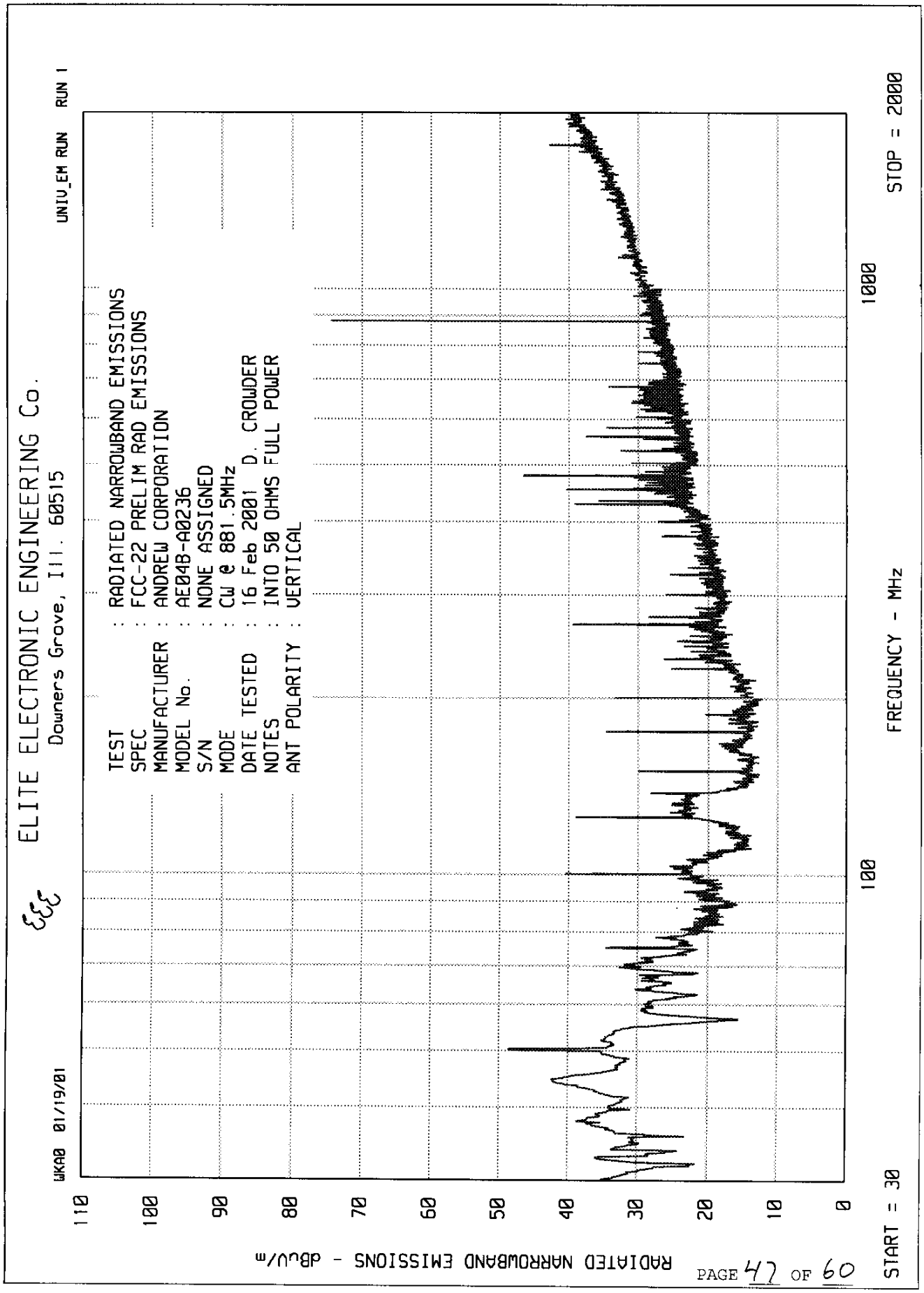

ELITE ELECTRONIC ENGINEERING CO
hp
REF -0.9 dBm
ATTEN 10 dB
MKR 5.968 GHz
-62.70 dBm
10 dB/
DL
-53.0
dBm
ANDREW CORP. : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 ANT COND SPURIOUS EMISSIONS
MODE : CDMA @ 881.5MHz
NOTES : INPUT
D. CROWDER
13 Feb 2001
13:49:05
START 2.00 GHz
RES BW 1 MHz
VBW 3 MHz
STOP 10.00 GHz
SWP 200 msec

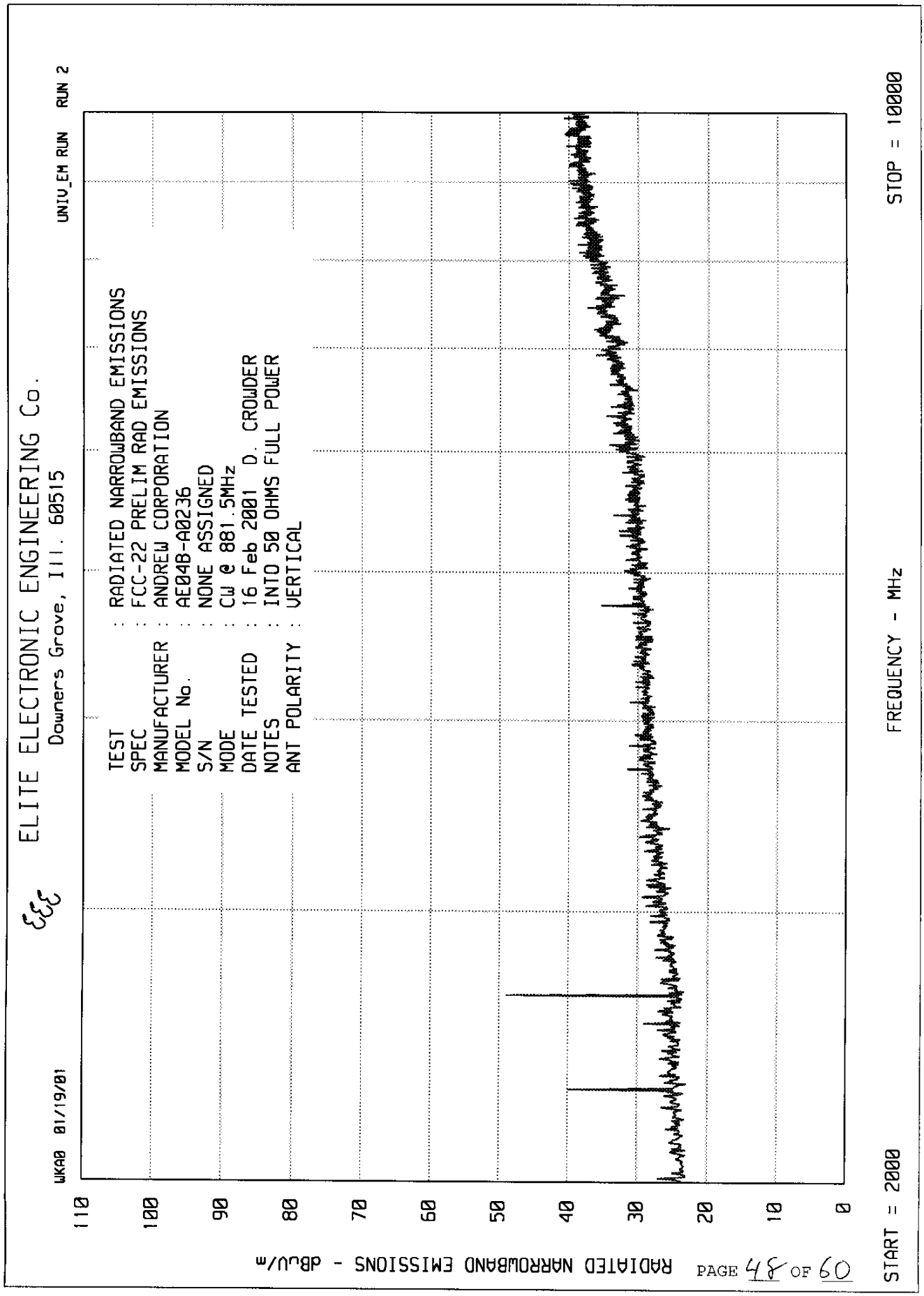

ELITE ELECTRONIC ENGINEERING CO
hp
REF 9.0 dBm
ATTEN 20 dB +50 dB Ext
MKR 880.98 MHz
-35.30 dBm
10 dB/
DL
-63.0
dBm
ANDREW CORP. : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 ANT COND SPURIOUS EMISSIONS
MODE : CDMA @ 881.5MHz
NOTES : OUTPUT
D. CROWDER
13 Feb 2001
13:42:37
START 865.0 MHz
RES BW 1 kHz
VBW 3 kHz
STOP 899.0 MHz
SWP 102 sec

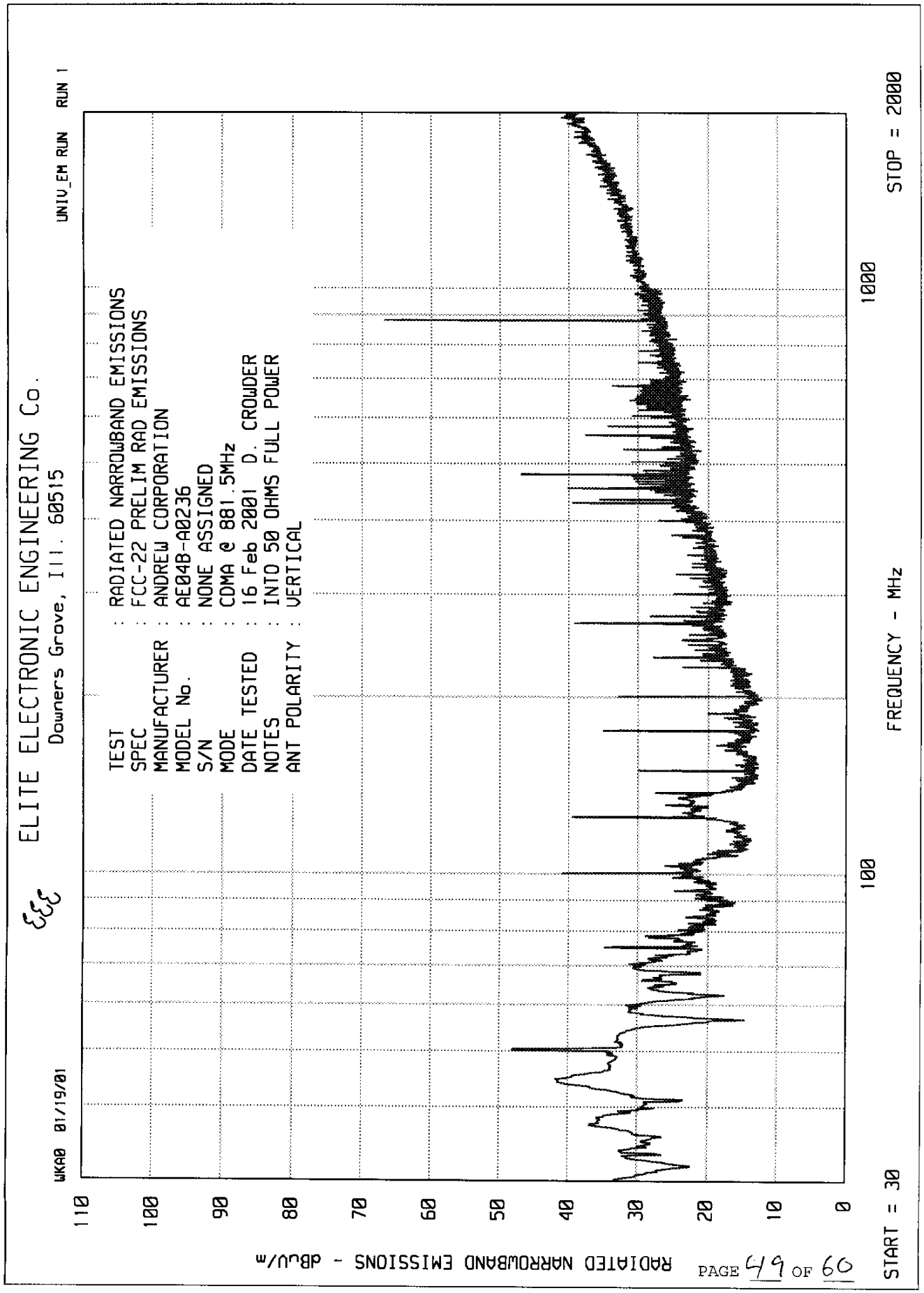

ELITE ELECTRONIC ENGINEERING CO
MKR 881.7 MHz
-17.50 dBm
D. CROWDER
13 Feb 2001
13:43:23
hp
REF -0.9 dBm
ATTEN 10 dB + 30 dB Ext
10 dB/
DL
-63.0
dBm
ANDREW CORP. : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 ANT COND SPURIOUS EMISSIONS
MODE : CDMA @ 881.5MHz
NOTES : OUTPUT
-13 dBm
START 30 MHz
RES BW 100 kHz
VBW 300 kHz
STOP 1.000 GHz
SWP 291 msec

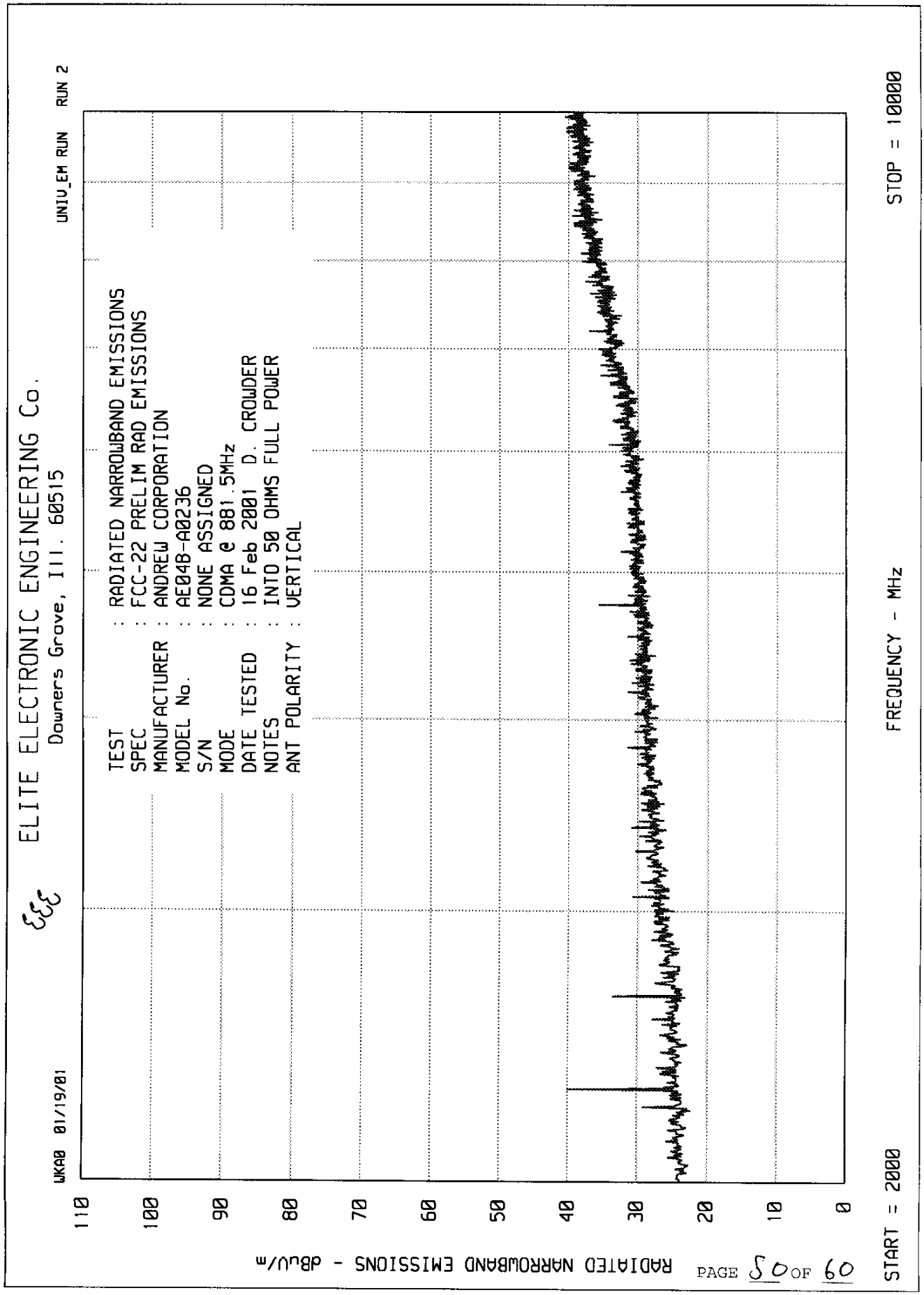

ELITE ELECTRONIC ENGINEERING CO
hp
REF -0.9 dBm
ATTEN 10 dB 440 dB Ext.
MKR 1.496 GHz
-67.40 dBm
10 dB/
DL
-53.0
dBm
ANDREW CORP. : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 ANT COND SPURIOUS EMISSIONS
MODE : CDMA @ 881.5MHz
NOTES : OUTPUT
D. CROWDER
13 Feb 2001
13:45:12
-13dBm
START 1.00 GHz
RES BW 1 MHz
VBW 3 MHz
STOP 2.00 GHz
SWP 25.0 msec

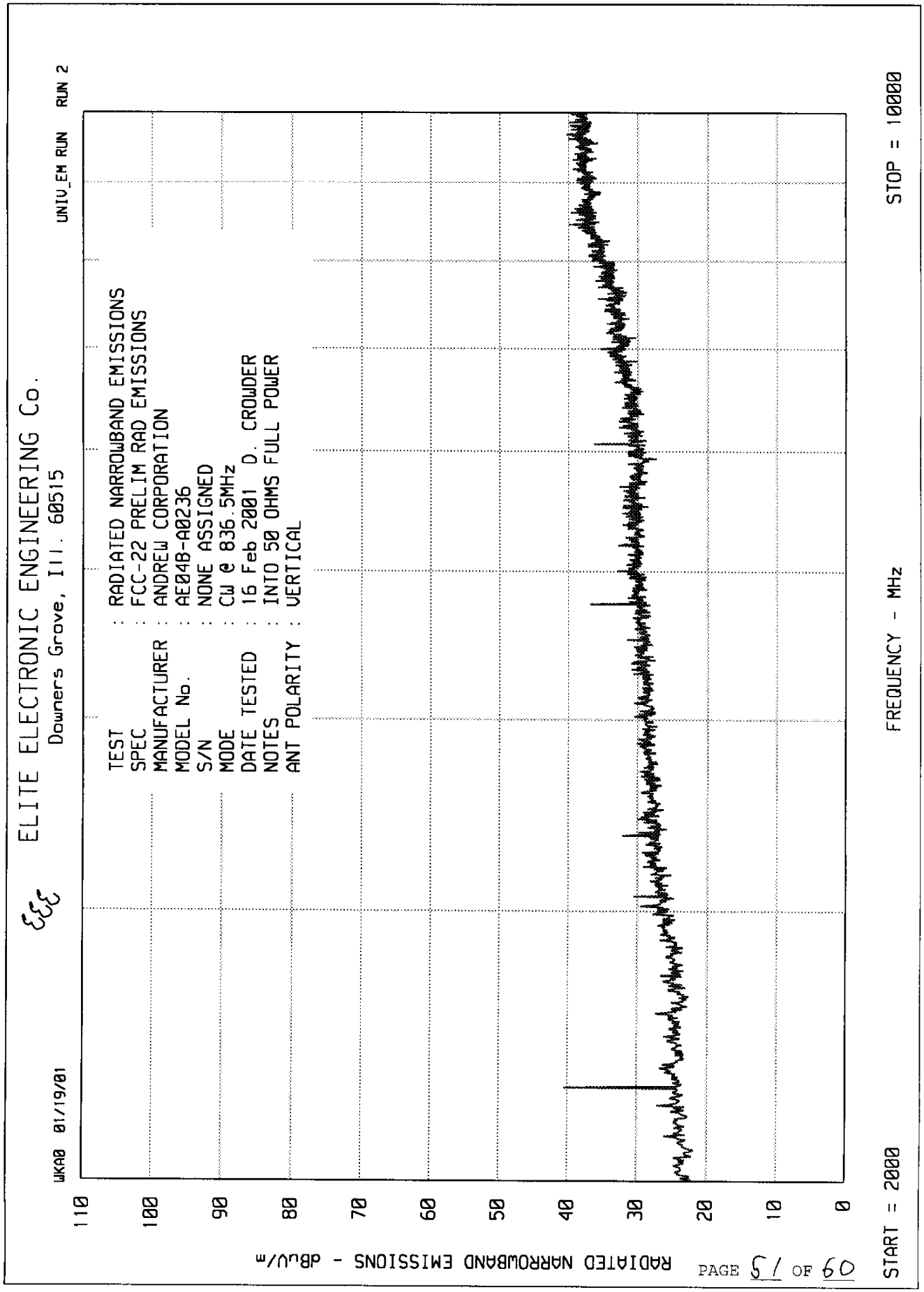

ELITE ELECTRONIC ENGINEERING CO
hp
REF -0.9 dBm
ATTEN 10 dB +40 dB Ext.
MKR 5.968 GHz
-62.50 dBm
10 dB/
DL
-53.0
dBm
ANDREW CORP. : ANDREW CORP.
MODEL : AE04B-A0236
SERIAL No. : NONE ASSIGNED
TEST PERFORMED: FCC-22 ANT COND SPURIOUS EMISSIONS
MODE : CDMA @ 881.5MHz
NOTES : OUTPUT
-13dBm
D. CROWDER
13 Feb 2001
13:45:45
START 2.00 GHz
RES BW 1 MHz
VBW 3 MHz
STOP 10.00 GHz
SWP 200 msec

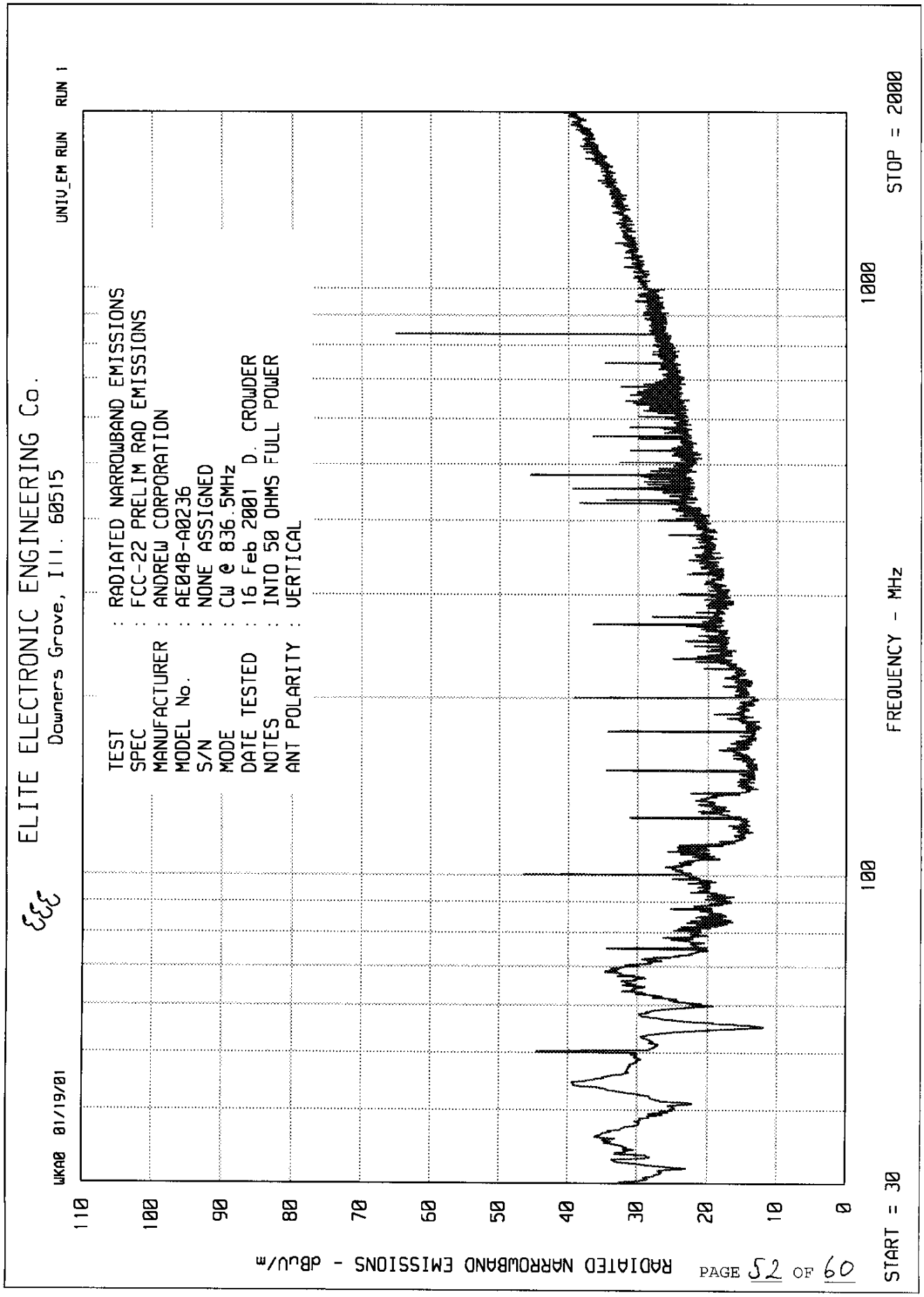

ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515
UNIV_EM RUN RUN 1
WKA0 01/19/01
TEST : RADIATED NARROWBAND EMISSIONS
SPEC : FCC-22 PRELIM RAD EMISSIONS
MANUFACTURER : ANDREW CORPORATION
MODEL No. : AE04B-A0236
S/N : NONE ASSIGNED
MODE : CW @ 881.5MHz
DATE TESTED : 16 Feb 2001 D. CROWDER
NOTES : INTO 50 OHMS FULL POWER
ANT POLARITY : VERTICAL
RADIATED NARROWBAND EMISSIONS - dBuV/m
110
100
90
80
70
60
50
40
30
20
10
0
START = 30
100
1000
STOP = 2000
FREQUENCY - MHz

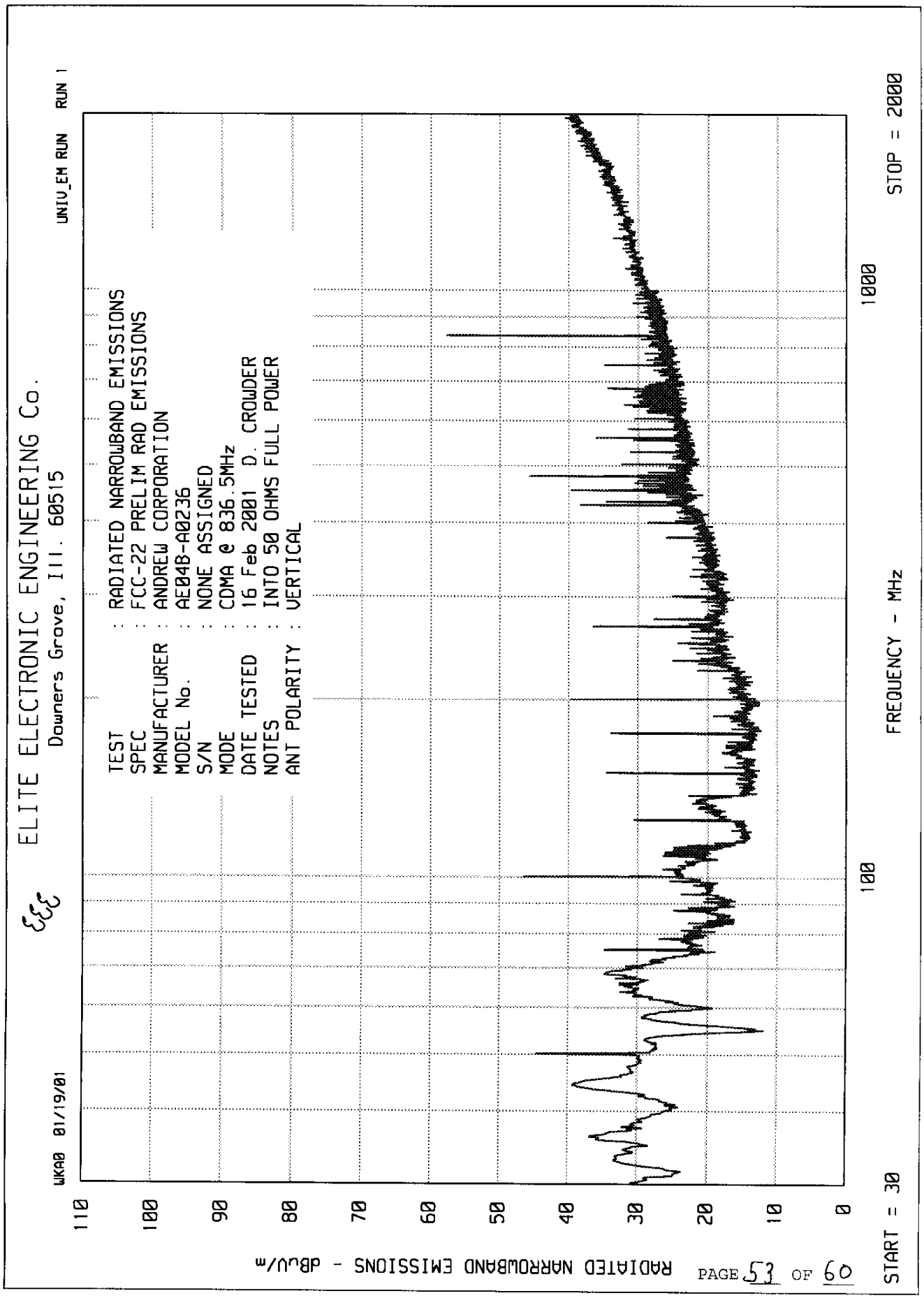

ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515
UNIV_EM RUN RUN 2
WKA0 01/19/01
TEST : RADIATED NARROWBAND EMISSIONS
SPEC : FCC-22 PRELIM RAD EMISSIONS
MANUFACTURER : ANDREW CORPORATION
MODEL No. : AE04B-A0236
S/N : NONE ASSIGNED
MODE : CW @ 881.5MHz
DATE TESTED : 16 Feb 2001 D. CROWDER
NOTES : INTO 50 OHMS FULL POWER
ANT POLARITY : VERTICAL
RADIATED NARROWBAND EMISSIONS - dBuV/m
110
100
90
80
70
60
50
40
30
20
10
0
START = 2000
FREQUENCY - MHz
STOP = 10000

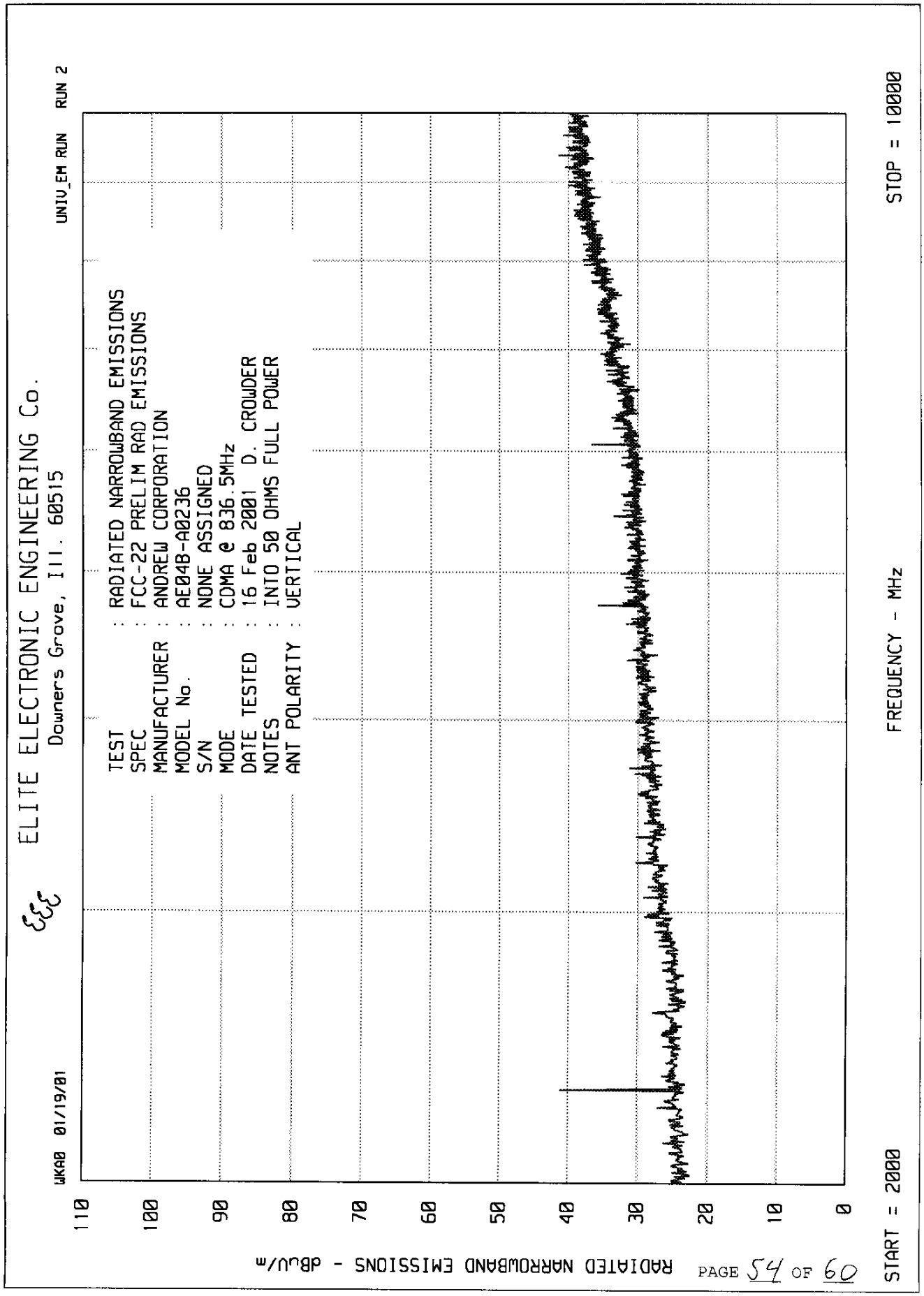

ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515
UNIV_EM RUN RUN 1
WKA0 01/19/01
TEST : RADIATED NARROWBAND EMISSIONS
SPEC : FCC-22 PRELIM RAD EMISSIONS
MANUFACTURER : ANDREW CORPORATION
MODEL No. : AE04B-A0236
S/N : NONE ASSIGNED
MODE : CDMA @ 881.5MHz
DATE TESTED : 16 Feb 2001 D. CROWDER
NOTES : INTO 50 OHMS FULL POWER
ANT POLARITY : VERTICAL
RADIATED NARROWBAND EMISSIONS - dBuV/m
110
100
90
80
70
60
50
40
30
20
10
0
START = 30
100
1000
STOP = 2000
FREQUENCY - MHz


ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515
UNIV_EM RUN RUN 2
WKA0 01/19/01
TEST : RADIATED NARROWBAND EMISSIONS
SPEC : FCC-22 PRELIM RAD EMISSIONS
MANUFACTURER : ANDREW CORPORATION
MODEL No. : AE04B-A0236
S/N : NONE ASSIGNED
MODE : CDMA @ 881.5MHz
DATE TESTED : 16 Feb 2001 D. CROWDER
NOTES : INTO 50 OHMS FULL POWER
ANT POLARITY : VERTICAL
RADIATED NARROWBAND EMISSIONS - dBuV/m
110
100
90
80
70
60
50
40
30
20
10
0
START = 2000
FREQUENCY - MHz
STOP = 10000


ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515
UNIV_EM RUN RUN 2
WKA0 01/19/01
TEST : RADIATED NARROWBAND EMISSIONS
SPEC : FCC-22 PRELIM RAD EMISSIONS
MANUFACTURER : ANDREW CORPORATION
MODEL No. : AE04B-A0236
S/N : NONE ASSIGNED
MODE : CW @ 836.5MHz
DATE TESTED : 16 Feb 2001 D. CROWDER
NOTES : INTO 50 OHMS FULL POWER
ANT POLARITY : VERTICAL
RADIATED NARROWBAND EMISSIONS - dBuV/m
110
100
90
80
70
60
50
40
30
20
10
0
START = 2000
FREQUENCY - MHz
STOP = 10000


ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515
UNIV_EM RUN RUN 1
WKA0 01/19/01
TEST : RADIATED NARROWBAND EMISSIONS
SPEC : FCC-22 PRELIM RAD EMISSIONS
MANUFACTURER : ANDREW CORPORATION
MODEL No. : AE04B-A0236
S/N : NONE ASSIGNED
MODE : CW @ 836.5MHz
DATE TESTED : 16 Feb 2001 D. CROWDER
NOTES : INTO 50 OHMS FULL POWER
ANT POLARITY : VERTICAL
RADIATED NARROWBAND EMISSIONS - dBuV/m
110
100
90
80
70
60
50
40
30
20
10
0
START = 30
100
1000
STOP = 2000
FREQUENCY - MHz


ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515
UNIV_EM RUN RUN 1
WKA0 01/19/01
TEST : RADIATED NARROWBAND EMISSIONS
SPEC : FCC-22 PRELIM RAD EMISSIONS
MANUFACTURER : ANDREW CORPORATION
MODEL No. : AE04B-A0236
S/N : NONE ASSIGNED
MODE : CDMA @ 836.5MHz
DATE TESTED : 16 Feb 2001 D. CROWDER
NOTES : INTO 50 OHMS FULL POWER
ANT POLARITY : VERTICAL
RADIATED NARROWBAND EMISSIONS - dBuV/m
110
100
90
80
70
60
50
40
30
20
10
0
START = 30
100
1000
STOP = 2000
FREQUENCY - MHz


ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515
UNIV_EM RUN RUN 2
WKA0 01/19/01
TEST : RADIATED NARROWBAND EMISSIONS
SPEC : FCC-22 PRELIM RAD EMISSIONS
MANUFACTURER : ANDREW CORPORATION
MODEL No. : AE04B-A0236
S/N : NONE ASSIGNED
MODE : CDMA @ 836.5MHz
DATE TESTED : 16 Feb 2001 D. CROWDER
NOTES : INTO 50 OHMS FULL POWER
ANT POLARITY : VERTICAL
RADIATED NARROWBAND EMISSIONS - dBuV/m
110
100
90
80
70
60
50
40
30
20
10
0
START = 2000
FREQUENCY - MHz
STOP = 10000

ENGINEERING TEST REPORT NO. 23446
DATA SHEET

MANUFACTURER : ANDREW CORPORATION
MODEL : AE04B-A0236 SELECTAMP800 CHANNELIZED AMPLIFIER
S/N : NONE ASSIGNED
SPECIFICATION : FCC-22 OPEN FIELD SPURIOUS RADIATED EMISSIONS
MODE : TRANSMITTING @ 836.5MHz,CW MODULATION
DATE : FEBRUARY 16, 2001
NOTES : TEST DISTANCE IS 3 METERS

Frequency MHz	Antenna Polarity	Meter Reading (dBuV)	Matched Signal (dBm)	Antenna Gain (dB)	Cable Loss (dB)	Total (dBm)	Limit (dBm)
1673	H	60.1	-50.0	6.61	-2.25	-45.6	-13
1673	V	73.5	-36.1	6.61	-2.25	-31.7	-13
2509.5	H	45.3 *	-67.0	6.91	-2.85	-62.9	-13
2509.5	V	57.8	-46.6	6.91	-2.85	-42.5	-13
3346	H	44.7 *	-62.7	7.11	-3.30	-58.9	-13
3346	V	45.0	-62.0	7.11	-3.30	-58.2	-13
4162.5	H	44.3 *	-65.5	7.01	-3.75	-62.2	-13
4162.5	V	44.3 *	-64.0	7.01	-3.75	-60.7	-13
5019	H	44.3 *	-61.0	7.61	-4.20	-57.6	-13
5019	V	44.3 *	-60.0	7.61	-4.20	-56.6	-13
5855.5	H	46.2 *	-60.0	8.31	-4.50	-56.2	-13
5855.5	V	46.2 *	-60.0	8.31	-4.50	-56.2	-13
6692	H	46.5 *	-57.0	8.71	-5.10	-53.4	-13
6692	V	46.5 *	-58.0	8.71	-5.10	-54.4	-13
7528.5	H	46.1 *	-57.0	8.41	-5.85	-54.4	-13
7528.5	V	46.1 *	-57.0	8.41	-5.85	-54.4	-13
8365	H	46.2 *	-56.0	8.91	-6.30	-53.4	-13
8365	V	46.2 *	-55.0	9.91	-6.30	-51.4	-13

* - AMBIENT

CHECKED BY:

ENGINEERING TEST REPORT NO. 23446
DATA SHEET

MANUFACTURER : ANDREW CORPORATION
MODEL : AE04B-A0236 SELECTAMP800 CHANNELIZED AMPLIFIER
S/N : NONE ASSIGNED
SPECIFICATION : FCC-22 OPEN FIELD SPURIOUS RADIATED EMISSIONS
MODE : TRANSMITTING @ 836.5MHz,CDMA MODULATION
DATE : FEBRUARY 16, 2001
NOTES : TEST DISTANCE IS 3 METERS

Frequency MHz	Antenna Polarity	Meter Reading (dBuV)	Matched Signal (dBm)	Antenna Gain (dB)	Cable Loss (dB)	Total (dBm)	Limit (dBm)
1673	H	60.9	-48.0	6.61	-2.25	-43.6	-13
1673	V	77.2	-32.9	6.61	-2.25	-28.5	-13
2509.5	H	44.6 *	-67.0	6.91	-2.85	-62.9	-13
2509.5	V	61.8	-42.9	6.91	-2.85	-38.8	-13
3346	H	44.7 *	-62.0	7.11	-3.30	-58.2	-13
3346	V	44.7 *	-62.0	7.11	-3.30	-58.2	-13
4162.5	H	44.7 *	-65.0	7.01	-3.75	-61.7	-13
4162.5	V	44.7 *	-64.0	7.01	-3.75	-60.7	-13
5019	H	44.6 *	-61.0	7.61	-4.20	-57.6	-13
5019	V	44.6 *	-60.0	7.61	-4.20	-56.6	-13
5855.5	H	45.8 *	-60.0	8.31	-4.50	-56.2	-13
5855.5	V	45.8 *	-60.0	8.31	-4.50	-56.2	-13
6692	H	45.6 *	-57.0	8.71	-5.10	-53.4	-13
6692	V	45.6 *	-57.0	8.71	-5.10	-53.4	-13
7528.5	H	45.8 *	-57.0	8.41	-5.85	-54.4	-13
7528.5	V	45.8 *	-57.0	8.41	-5.85	-54.4	-13
8365	H	46.0 *	-56.0	8.91	-6.30	-53.4	-13
8365	V	46.0 *	-56.0	9.91	-6.30	-52.4	-13

* - AMBIENT

CHECKED BY: 

ENGINEERING TEST REPORT NO. 23446
DATA SHEET

MANUFACTURER : ANDREW CORPORATION
MODEL : AE04B-A0236 SELECTAMP800 CHANNELIZED AMPLIFIER
S/N : NONE ASSIGNED
SPECIFICATION : FCC-22 OPEN FIELD SPURIOUS RADIATED EMISSIONS
MODE : TRANSMITTING @ 881.5MHz,CW MODULATION
DATE : FEBRUARY 16, 2001
NOTES : TEST DISTANCE IS 3 METERS

Frequency MHz	Antenna Polarity	Meter Reading (dBuV)	Matched Signal (dBm)	Antenna Gain (dB)	Cable Loss (dB)	Total (dBm)	Limit (dBm)
1763	H	60.2	-47.7	6.31	-2.25	-43.6	-13
1763	V	65.1	-43.5	6.31	-2.25	-39.4	-13
2644.5	H	47.2	-62.0	7.21	-2.93	-57.7	-13
2644.5	V	49.3	-57.0	7.21	-2.93	-52.7	-13
3526	H	44.2 *	-60.0	7.01	-3.45	-56.4	-13
3526	V	44.2 *	-60.0	7.01	-3.45	-56.4	-13
4407.5	H	44.8 *	-64.0	7.81	-3.90	-60.1	-13
4407.5	V	44.8 *	-64.0	7.81	-3.90	-60.1	-13
5289	H	44.3 *	-60.0	7.81	-4.35	-56.5	-13
5289	V	44.3 *	-60.0	7.81	-4.35	-56.5	-13
6170.5	H	46.0 *	-60.0	8.51	-4.95	-56.4	-13
6170.5	V	46.0 *	-60.0	8.51	-4.95	-56.4	-13
7052	H	46.2 *	-59.0	8.31	-5.40	-56.1	-13
7052	V	46.2 *	-59.0	8.31	-5.40	-56.1	-13
7933.5	H	46.2 *	-57.0	8.11	-6.45	-55.3	-13
7933.5	V	46.2 *	-57.0	8.11	-6.45	-55.3	-13
8815	H	46.5 *	-56.0	8.81	-6.30	-53.5	-13
8815	V	46.5 *	-56.0	8.81	-6.30	-53.5	-13

* - AMBIENT

CHECKED BY:

ENGINEERING TEST REPORT NO. 23446
DATA SHEET

MANUFACTURER : ANDREW CORPORATION
MODEL : AE04B-A0236 SELECTAMP800 CHANNELIZED AMPLIFIER
S/N : NONE ASSIGNED
SPECIFICATION : FCC-22 OPEN FIELD SPURIOUS RADIATED EMISSIONS
MODE : TRANSMITTING @ 881.5MHz,CDMA MODULATION
DATE : FEBRUARY 16, 2001
NOTES : TEST DISTANCE IS 3 METERS

Frequency MHz	Antenna Polarity	Meter Reading (dBuV)	Matched Signal (dBm)	Antenna Gain (dB)	Cable Loss (dB)	Total (dBm)	Limit (dBm)
1763	H	66.8	-41.7	6.31	-2.25	-37.6	-13
1763	V	77.6	-31.4	6.31	-2.25	-27.3	-13
2644.5	H	51.8	-57.4	7.21	-2.93	-53.1	-13
2644.5	V	63.6	-41.6	7.21	-2.93	-37.3	-13
3526	H	44.6 *	-60.0	7.01	-3.45	-56.4	-13
3526	V	44.6 *	-60.0	7.01	-3.45	-56.4	-13
4407.5	H	44.9 *	-64.0	7.81	-3.90	-60.1	-13
4407.5	V	44.9 *	-64.0	7.81	-3.90	-60.1	-13
5289	H	44.7 *	-60.0	7.81	-4.35	-56.5	-13
5289	V	44.7 *	-60.0	7.81	-4.35	-56.5	-13
6170.5	H	45.7 *	-59.0	8.51	-4.95	-55.4	-13
6170.5	V	45.7 *	-59.0	8.51	-4.95	-55.4	-13
7052	H	46.6 *	-59.0	8.31	-5.40	-56.1	-13
7052	V	46.6 *	-59.0	8.31	-5.40	-56.1	-13
7933.5	H	45.9 *	-57.0	8.11	-6.45	-55.3	-13
7933.5	V	45.9 *	-57.0	8.11	-6.45	-55.3	-13
8815	H	46.9 *	-56.0	8.81	-6.30	-53.5	-13
8815	V	46.9 *	-56.0	8.81	-6.30	-53.5	-13

* - AMBIENT

CHECKED BY:

ENGINEERING TEST REPORT NO. 23446

DATA SHEET

MANUFACTURER : ANDREW CORP.
TEST ITEM : SELECTAMP800 CHANNELIZED AMPLIFIER
MODEL NO. : AE04B-A0236
SERIAL NUMBER : NONE ASSIGNED
TEST DESCRIPTION : FREQUENCY STABILITY vs. TEMPERATURE
TEST EQUIPMENT : See Table I
DATE TESTED : FEBRUARY 14, 2001
NOTES : Unmodulated

Temperature Degrees Centigrade	Frequency MHz	Duration Minutes	Frequency Stability ppm
23	836.500232	REF	---
-30	836.500237	>30	<1.5
-20	836.500238	>30	<1.5
-10	836.500238	>30	<1.5
0	836.500238	>30	<1.5
10	836.500238	>30	<1.5
20	836.500239	>30	<1.5
30	836.500240	>30	<1.5
40	836.500239	>30	<1.5
50	836.500238	>30	<1.5
23	881.500244	REF	---
-30	881.500251	>30	<1.5
-20	881.500251	>30	<1.5
-10	881.500251	>30	<1.5
0	881.500251	>30	<1.5
10	881.500251	>30	<1.5
20	881.500253	>30	<1.5
30	881.500252	>30	<1.5
40	881.500252	>30	<1.5
50	881.500251	>30	<1.5

CHECKED BY: _____

ENGINEERING TEST REPORT NO. 23446

DATA SHEET

MANUFACTURER	: ANDREW CORP.
TEST ITEM	: SELECTAMP800 CHANNELIZED AMPLIFIER
MODEL NO.	: AE04B-A0236
SERIAL NUMBER	: NONE ASSIGNED
TEST DESCRIPTION	: FREQUENCY STABILITY vs. VOLTAGE
TEST EQUIPMENT	: See Table I
DATE TESTED	: FEBRUARY 14, 2001
NOTES	: Unmodulated

Voltage VDC	% of Nominal Voltage	Frequency MHz	Frequency Stability ppm
115	Nominal	836.500239	---
98	85	836.500237	<1.5
132	115	836.500239	<1.5
115	Nominal	881.500251	---
98	85	881.500250	<1.5
132	115	881.500253	<1.5

CHECKED BY: _____