7. TEST REPORT

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

ELITE PROJECT: 26684 DATES TESTED: May 7 and 8, 1998

TEST PERSONNEL: Franklin E. Bowes, Daniel E. Crowder
NARTE EMC-001162-NT

TEST SPECIFICATION: FCC "Code of Federal Regulations" Title 47
Part 15, Subpart B

ENGINEERING TEST REPORT NO. 20707

MEASUREMENT OF RF INTERFERENCE FROM

A MODEL 139.53662SRT2 RECEIVER

FOR: Chamberlain Manufacturing
Elmhurst, Illinois

PURCHASE ORDER NO.: 715218

Report By: Franklin E. Bowes
Franklin E. Bowes
Andrew Savikas

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

ENGINEERING TEST REPORT NO. 20707

ADMINISTRATIVE DATA AND SUMMARY OF TESTS

DESCRIPTION OF TEST ITEM: Super-Regenerative Receiver

MODEL NO: 139.53662SRT2 **SERIAL NO:** 05185C00073

MANUFACTURER: Chamberlain Manufacturing

APPLICABLE SPECIFICATIONS: FCC "Code of Federal Regulations" Title 47, Part 15, Subpart B

QUANTITY OF ITEMS TESTED: One (1)

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

DATES TESTED: May 7 and 8, 1998

PERSONNEL (OPERATORS, OBSERVERS, AND CO-ORDINATORS):
CUSTOMER: No Chamberlain Manufacturing personnel were present.
ELITE ELECTRONIC: Franklin E. Bowes, Daniel E. Crowder

ELITE JOB NO.: 26684

ABSTRACT: The model 139.53662SRT2 Super-Regenerative Receiver, does meet the conducted and radiated emission requirements of the FCC "Code of Federal Regulations", Title 47, Part 15, Subpart B for unintentional radiators (receivers). The conducted emissions level closest to the limit occurred at 537kHz. The emissions level at this frequency was 11.8dB within the limit. See data pages 105 through 108 for more detailed results. The radiated emissions level closest to the limit occurred at 800.4MHz. The emissions level at this frequency was 1.7dB within the limit. See data pages 113 and 114 for more details.

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ENGINEERING TEST REPORT NO. 20707

MEASUREMENT OF RF INTERFERENCE FROM

A MODEL 139.53662SRT2 SUPER REGENERATIVE RECEIVER

1.0 INTRODUCTION:

1.1 DESCRIPTION OF TEST ITEM: During the period of May 7 and 8, 1998, a series of radio interference measurements were performed on a model 139.53662SRT2 Super-Regenerative Receiver, part number 41A5021-2C, serial number 05185C00073, (hereinafter referred to as the test item). The tests were performed for Chamberlain Manufacturing of Elmhurst, Illinois.

The test item is a super-regenerative type receiver designed to tune at approximately 433MHz. It has an external stub antenna.

1.2 PURPOSE: The test series was performed to determine if the test item meets the conducted and radiated RF emission requirements of the FCC "Code of Federal Regulations" Title 47, Part 15, Subpart B, Sections 15.107 and 15.109 for unintentional radiators. Testing was performed in accordance with ANSI C63.4-1992.

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 15, Subpart B for unintentional radiators, dated 1 October 1997
- 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"

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

2.0 TEST ITEM SETUP AND OPERATION:

For all tests the test item and all peripheral equipment were placed on a 80cm high non-conductive stand.

For all tests, the test item was energized. When the test item is energized, it is in the normal mode of operation, waiting for a transmitted signal. The test item was operated both cohered by an external 55dBuV (unmodulated) signal at 433MHz via a stub antenna, and uncohered with no transmitted signal.

The test item obtained 115V 60Hz power via a 3 wire, 1.2 meter long, unshielded power cord. The high and low leads were connected through a line impedance stabilization network (LISN) which was located on the copper ground plane. The network complies with the requirements of Paragraph 4.1.2 of ANSI C63.4-1992.

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

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.

Conducted emission tests were performed with an HP 8566 spectrum analyzer in conjunction with an HP 85650A quasi-peak adapter.

Radiated emissions were performed with an HP 85462A spectrum analyzer. This receiver allows measurements with the bandwidths

specified by the FCC and with the quasi-peak detector function. The receiver bandwidth was 120kHz for the 30MHz to 1000MHz radiated emissions data. Measurements above 1GHz were performed with a 1MHz bandwidth with the average detector function.

4.0 REQUIREMENTS, PROCEDURES AND RESULTS:

4.1 POWERLINE CONDUCTED EMISSIONS:

4.1.1 REQUIREMENTS: All radio frequency voltages on the power lines of an unintentional radiator shall be below 250uV (quasi-peak) over the frequency range from 0.45MHz to 30MHz. It is also to be noted that if emitted levels in the peak detector function do not exceed the above limits, the test item does meet the intent of these requirements.

4.1.2 PROCEDURES: The interference on each power lead was measured by connecting the measuring equipment to the appropriate meter terminal of the LISN. The meter terminal of the LISN not under test was terminated with 50 ohms. Measurements were first made over the entire frequency range from 450kHz through 30MHz with a peak detector and the results were automatically plotted. The data thus obtained was then searched by the computer for the highest levels. Quasi-peak measurements were automatically performed at the frequencies selected from the highest peak measurements, and the results printed.

4.1.3 RESULTS: The plots of the peak preliminary conducted voltage levels on each power line are presented on data pages 101 through 104. The conducted limit for unintentional radiators category is shown as a reference. The final quasi-peak results are presented on data pages 105 through 108.

All conducted emission levels met the specification's requirements. The emissions level closest to the limit occurred at 537kHz. The emissions level at this frequency was 11.8dB within the limit. Photographs of the test configuration which yielded the highest conducted emission levels are shown on Figure 1.

4.2 RADIATED MEASUREMENTS:

4.2.1 REQUIREMENTS: All emanations from an unintentional radiator shall be below the levels shown on the following table.

RADIATION LIMITS FOR UNINTENTIONAL RADIATORS

Frequency MHz	Distance between Test Item and Antenna in Meters	Field Strength uV/m
30-88	3	100
88-216	3	150
216-960	3	200
Above 960	3	500

Note: The tighter limit shall apply at the edge between the two frequency bands.

4.2.2 PROCEDURES: All tests were performed in a 32ft. x 20ft. x 18ft. hybrid ferrite-tile/anechoic absorber lined test chamber. The floor 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.

Since a quasi-peak detector requires long integration times, it

is not practical to automatically sweep through the quasi-peak levels. Therefore, radiated emissions from the test item were first scanned using a peak detector and automatically plotted. The frequencies where significant emission levels were noted were then remeasured using the quasi-peak detector.

The broadband measuring antenna was positioned at a 3 meter distance from the test item. The frequency range from 30MHz to 1000MHz was investigated using a peak detector function with the bilog antenna at several heights, horizontal and vertical antenna polarization, and with several different orientations of the test item with respect to the antenna. The maximum levels for each antenna polarization were plotted.

Final radiated emissions were performed on all significant broadband and narrowband emissions found in the preliminary sweeps using the following methods:

1) Measurements from 30MHz to 1GHz were made using a quasi-peak detector and a broadband bi-log antenna.

2) Measurements above 1GHz were made using an average detector and a ridged waveguide antenna.

3) To ensure that maximum, or worst case, emission levels were measured, the following steps were taken:

   (a) The test item was rotated so that all of its sides were exposed to the receiving antenna.

   (b) Since the measuring antenna is linearly polarized, both horizontal and vertical field components were measured.

   (c) The measuring antenna was raised and lowered from 1 to 4 meters for each antenna polarization to maximize the readings.

4.3 FINAL RESULTS: The preliminary plots are presented on data

pages 109 through 112. The final data is presented on pages 113 and 114.

The emissions level closest to the limit occurred at 800.4MHZ. The emissions level at this frequency was 1.7dB within the limit. See data pages 113 and 114 for more details. Photographs of the test configurations which yielded the highest radiated emission levels are shown on Figure 2.

5.0 CONCLUSION:

It was found that the Chamberlain Manufacturing model 139.53662SRT2 RECEIVER, serial number 05185c00073, does meet the conducted radio interference requirements of Section 15.107 and the radiated interference requirements of Section 15.109 of the FCC "Code of Federal Regulations" Title 47, Part 15, Subpart B for unintentional radiators (receivers).

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. 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.

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

ENGINEERING TEST REPORT NO. 20707

TABLE I: TEST EQUIPMENT LIST

ELITE ELECTRONIC ENGINEERING

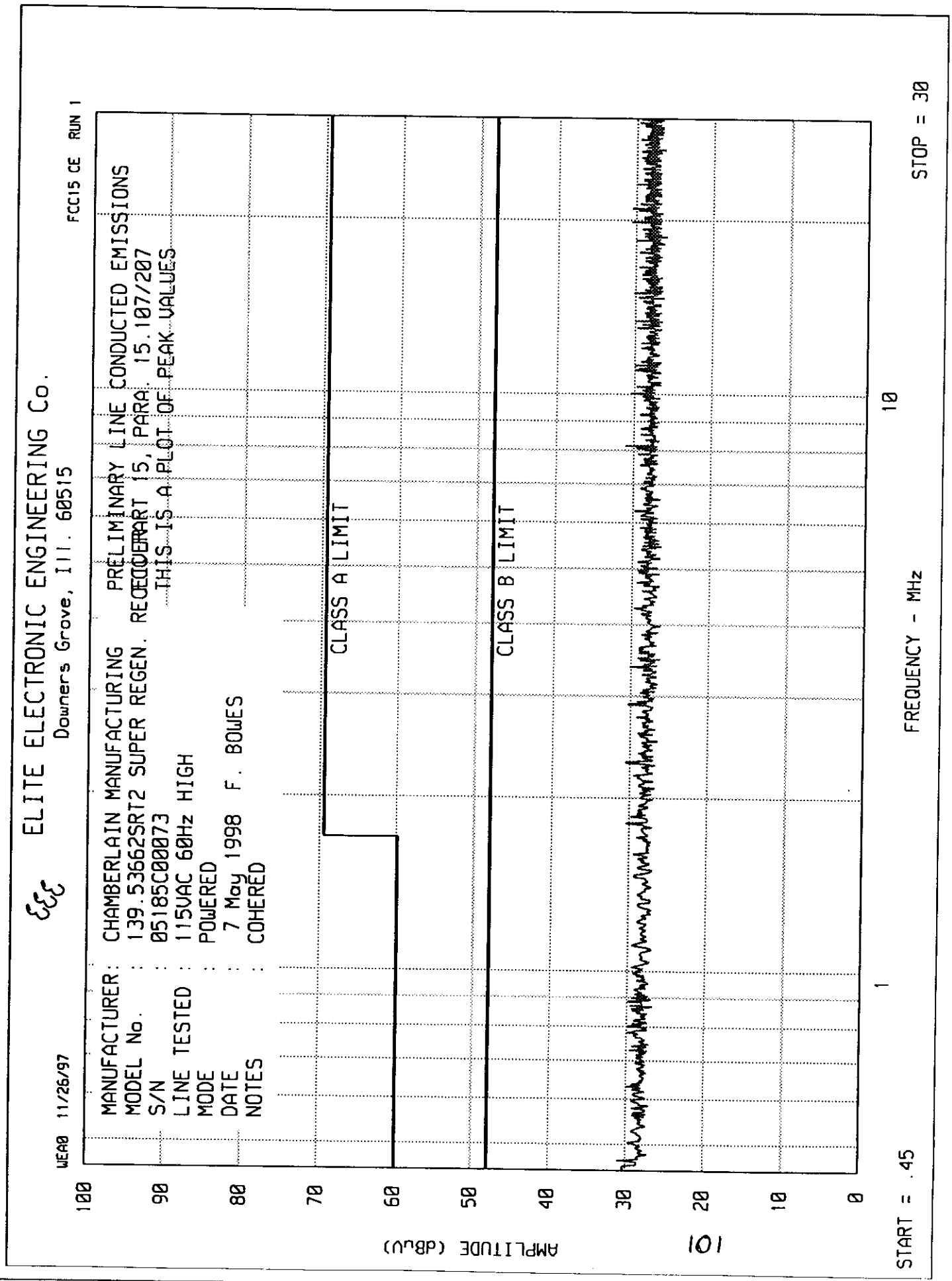
Eq ID	Equipment Description	Manufacturer	Model No.	Serial No.	Frequency Range	Cal Date	Cal Inv	Due Date
Equipment Type: ANTENNAS								
NTA0	BILOG ANTENNA	CHASE EMC LTD.	BILOG CBL611	2057	.03-2GHZ	03/18/98	13	04/18/99
Equipment Type: ATTENUATORS								
T1K1	10DB, 2.5W LIMITER	HEWLETT PACKARD	11947A	3107A01737	.01-200MHZ	02/24/98	12	02/24/99
Equipment Type: CONTROLLERS								
CDB0	COMPUTER	HEWLETT PACKARD	D3094A#ABA	3506S01720	---		N/A	
CDD2	COMPUTER	HEWLETT PACKARD	D4171A#ABA	SUS61654645	N/A		N/A	
CMA0	MULTI-DEVICE CONTROLLER	EMCO	2090	9701-1213	---	10/21/97	12	10/21/98
Equipment Type: PROBES; CLAMP-ON & LISNS								
PLB2	FCC/LISN	CEMEC, INC.	FCC-20-2	1003	0.45-30MHZ	03/18/98	12	03/18/99
Equipment Type: PRINTERS AND PLOTTERS								
HRE0	LASERJET 5P PRINTER	HEWLETT PACKARD	C3150A	USHB007254	---		N/A	
HRE1	LASER JET 5P	HEWLETT PACKARD	C3150A	USHB061052	---		N/A	
Equipment Type: RECEIVERS								
RAC0	SPECTRUM ANALYZER	HEWLETT PACKARD	85660B	2449A01117	100HZ-22GHZ	02/04/98	12	02/04/99
RAF1	QUASIPEAK ADAPTER	HEWLETT PACKARD	85650A	2043A00271	0.01-1000MHZ	02/04/98	12	02/04/99
RAKG	RF SECTION	HEWLETT PACKARD	85462A	3549A00284	9KHZ-6.5GHZ	01/30/98	12	01/30/99
RAKH	RF FILTER SECTION	HEWLETT PACKARD	85460A	3448A00324	---	01/30/98	12	01/30/99
Equipment Type: SIGNAL GENERATORS								
GBL0	SYNTHESIZED GENERATOR	HEWLETT PACKARD	8656B	2523A01727	0.1-990MHZ	09/12/97	12	09/12/98

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.

Date: 05/26/98 Location = "EEE" Job Number = "26684"

ETR 20707



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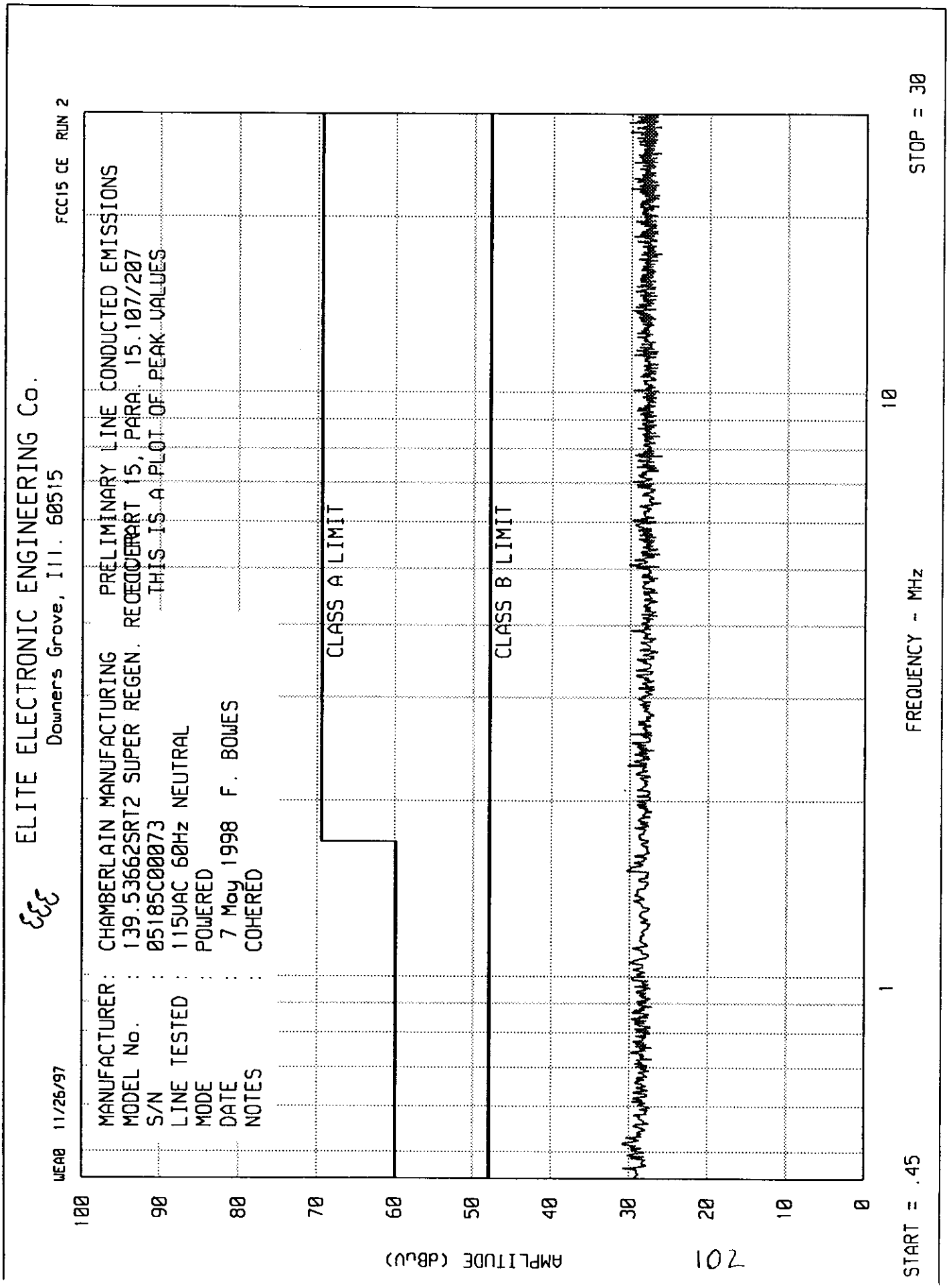
ETR 20707

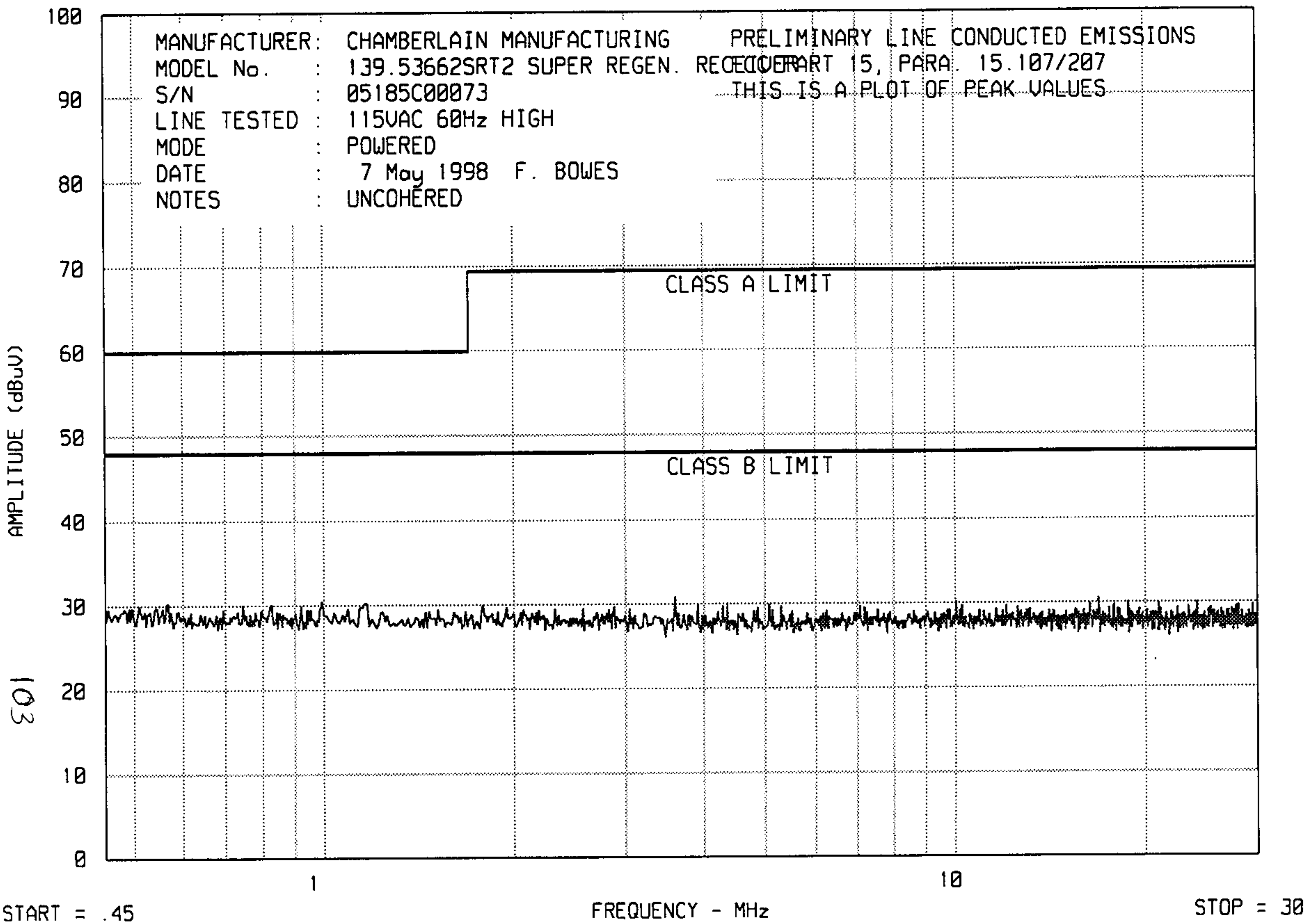

ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515
WEA0 11/26/97
FCC15 CE RUN 2
MANUFACTURER : CHAMBERLAIN MANUFACTURING
MODEL No. : 139.53662SRT2 SUPER REGEN. RECEIVER
S/N : 05185C00073
LINE TESTED : 115VAC 60Hz NEUTRAL
MODE : POWERED
DATE : 7 May 1998 F. BOWES
NOTES : COHERED
PRELIMINARY LINE CONDUCTED EMISSIONS
PER PART 15, PARA. 15.107/207
THIS IS A PLOT OF PEAK VALUES
CLASS A LIMIT
CLASS B LIMIT
AMPLITUDE (dBuV)
100
90
80
70
60
50
40
30
20
10
0
START = .45
1
10
STOP = 30
FREQUENCY - MHz

ETR 20707

ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515

WEA0 11/26/97

FCC15 CE RUN 4



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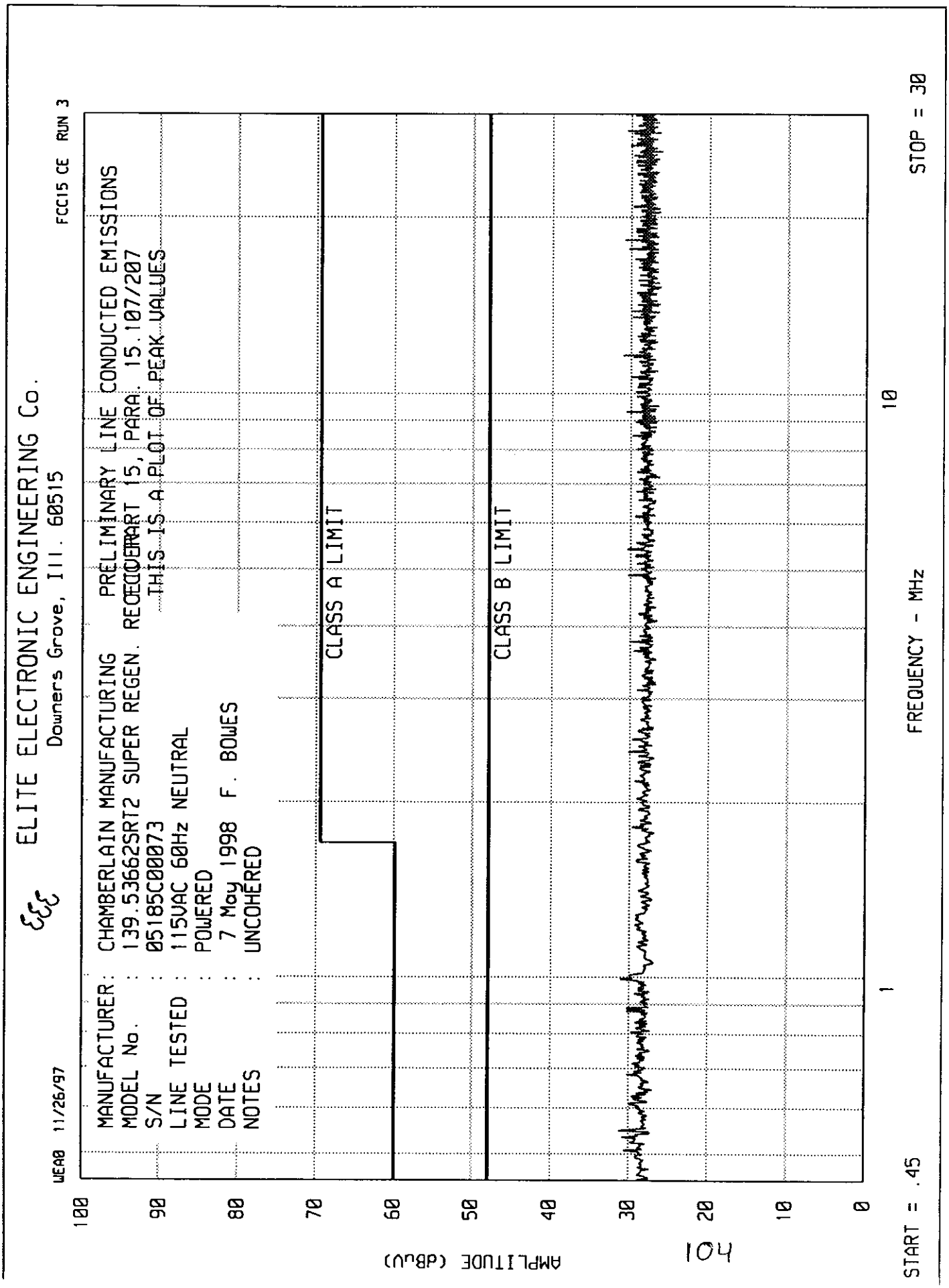

ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515
FCC15 CE RUN 3
WEA0 11/26/97
MANUFACTURER: CHAMBERLAIN MANUFACTURING
MODEL No. : 139.53662SRT2 SUPER REGEN. RECEIVER
S/N : 05185C00073
LINE TESTED : 115VAC 60Hz NEUTRAL
MODE : POWERED
DATE : 7 May 1998 F. BOWES
NOTES : UNCOHERED
PRELIMINARY LINE CONDUCTED EMISSIONS
PER FCC PART 15, PARA. 15.107/207
THIS IS A PLOT OF PEAK VALUES
CLASS A LIMIT
CLASS B LIMIT
AMPLITUDE (dBuV)
100
90
80
70
60
50
40
30
20
10
0
START = .45
1
10
STOP = 30
FREQUENCY - MHz

ETR No. 20707 RUN 1

ELITE ELECTRONIC ENGINEERING CO.

MANUFACTURER : CHAMBERLAIN MANUFACTURING
MODEL : 139.53662SRT2 SUPER REGEN. RECEIVER
S/N : 05185C00073
SPECIFICATION : FCC DIGITAL EQUIPMENT, CLASS B
TEST : LINE CONDUCTED EMISSIONS
LINE TESTED : 115VAC 60Hz HIGH
MODE : POWERED
DATE : 7 May 1998
NOTES : COHERED
RECEIVER : HP 8566 w/ HP85650A QP ADAPTOR
VALUES MEASURED WITH QP DETECTOR USING 9kHz BANDWIDTH

FREQUENCY MHz	METER RDG. uV	LIMIT uV
.457	58.8	250
.552	45.5	250
.773	15.1	250
.877	15.1	250
1.003	16.1	250
2.288	20.1	250
2.890	14.9	250
3.333	14.9	250
4.230	14.9	250
5.109	15.1	250
6.275	15.1	250
8.107	15.1	250
9.204	15.1	250
9.999	15.1	250
13.009	14.9	250
14.945	15.1	250
16.571	15.1	250
17.583	15.1	250
19.830	15.1	250
20.889	15.1	250
23.022	15.1	250
24.562	15.4	250
24.601	15.1	250
25.645	15.1	250
27.509	15.1	250
29.449	15.1	250

CHECKED BY: F. Bowes
F. BOWES

ETR No. 20707

RUN 2

ELITE ELECTRONIC ENGINEERING CO.

MANUFACTURER : CHAMBERLAIN MANUFACTURING
MODEL : 139.53662SRT2 SUPER REGEN. RECEIVER
S/N : 05185C00073
SPECIFICATION : FCC DIGITAL EQUIPMENT, CLASS B
TEST : LINE CONDUCTED EMISSIONS
LINE TESTED : 115VAC 60Hz NEUTRAL
MODE : POWERED
DATE : 7 May 1998
NOTES : COHERED
RECEIVER : HP 8566 w/ HP85650A QP ADAPTOR
VALUES MEASURED WITH QP DETECTOR USING 9kHz BANDWIDTH

FREQUENCY MHz	METER RDG. uV	LIMIT uV
.457	58.8	250
.732	37.6	250
.836	15.1	250
1.001	18.4	250
1.502	37.9	250
2.286	25.3	250
2.585	14.9	250
3.863	34.8	250
4.009	17.4	250
5.045	14.9	250
6.025	15.1	250
7.842	15.4	250
9.298	15.1	250
10.077	15.1	250
11.763	15.1	250
13.823	15.4	250
15.188	15.1	250
18.149	15.1	250
18.444	15.1	250
20.139	15.1	250
20.748	15.1	250
22.279	15.1	250
24.790	15.1	250
25.600	15.1	250
27.812	15.1	250
27.956	15.1	250
28.974	15.1	250

CHECKED BY: F. Bowes
F. BOWES

ETR No. 20707

RUN 4

ELITE ELECTRONIC ENGINEERING CO.

MANUFACTURER : CHAMBERLAIN MANUFACTURING
MODEL : 139.53662SRT2 SUPER REGEN. RECEIVER
S/N : 05185C00073
SPECIFICATION : FCC DIGITAL EQUIPMENT, CLASS B
TEST : LINE CONDUCTED EMISSIONS
LINE TESTED : 115VAC 60Hz HIGH
MODE : POWERED
DATE : 7 May 1998
NOTES : UNCOHERED
RECEIVER : HP 8566 w/ HP85650A QP ADAPTOR
VALUES MEASURED WITH QP DETECTOR USING 9kHz BANDWIDTH

FREQUENCY MHz	METER RDG. uV	LIMIT uV
.555	58.5	250
.736	15.1	250
.846	15.1	250
1.001	19.1	250
1.148	30.3	250
1.772	31.9	250
2.862	44.0	250
3.548	34.2	250
4.392	15.1	250
5.044	14.9	250
7.036	15.1	250
7.512	15.1	250
9.685	15.1	250
9.998	15.1	250
11.999	15.1	250
14.016	15.1	250
16.297	15.1	250
16.799	15.1	250
18.015	15.1	250
18.740	15.1	250
20.972	15.1	250
22.474	15.1	250
24.169	15.1	250
25.404	15.1	250
28.067	19.1	250
29.484	15.1	250

CHECKED BY: F. Bowes
F. BOWES

ETR No. 20707 RUN 3

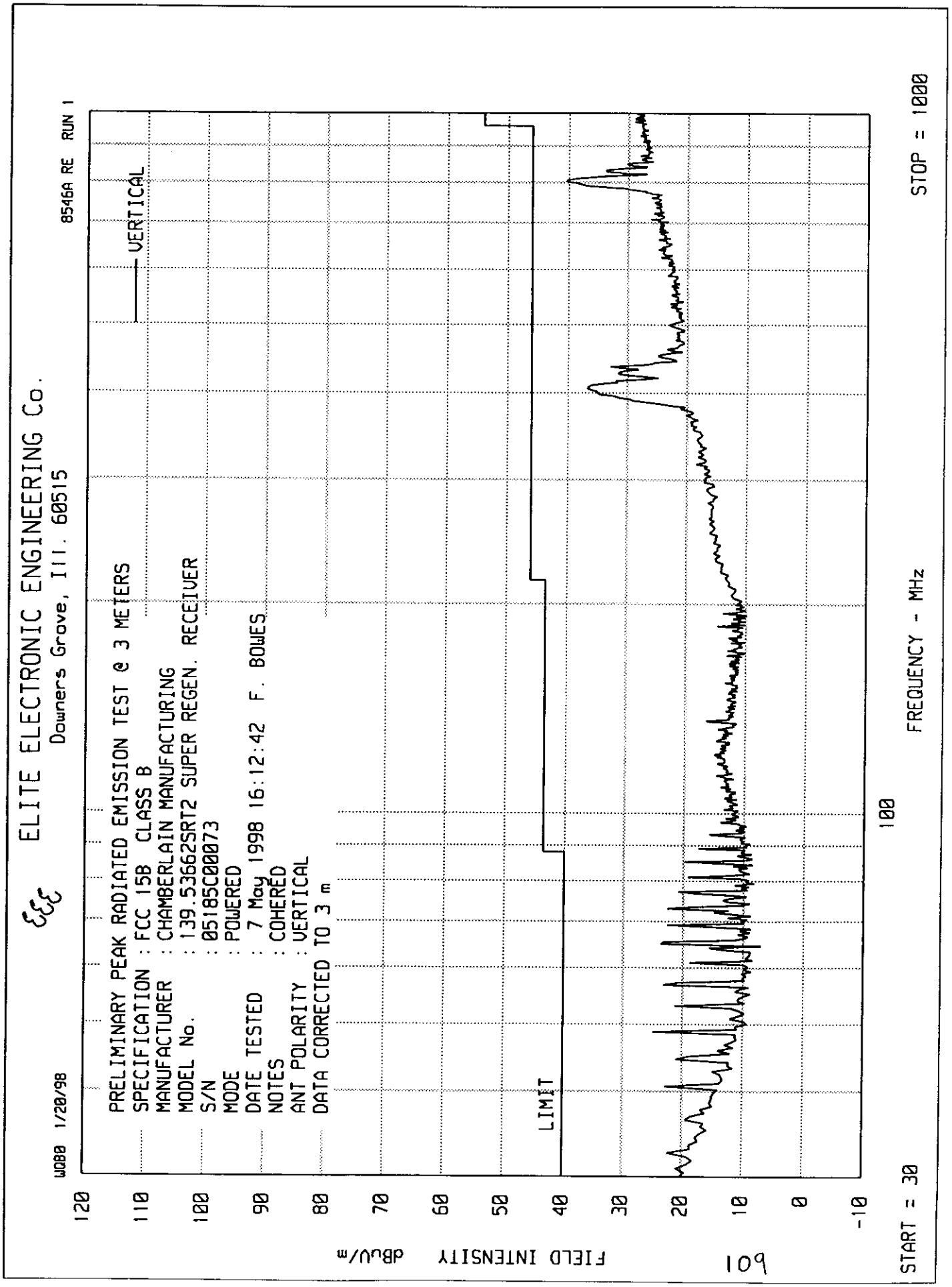
ELITE ELECTRONIC ENGINEERING CO.

MANUFACTURER : CHAMBERLAIN MANUFACTURING
MODEL : 139.53662SRT2 SUPER REGEN. RECEIVER
S/N : 05185C00073
SPECIFICATION : FCC DIGITAL EQUIPMENT, CLASS B
TEST : LINE CONDUCTED EMISSIONS
LINE TESTED : 115VAC 60Hz NEUTRAL
MODE : POWERED
DATE : 7 May 1998
NOTES : UNCOHERED
RECEIVER : HP 8566 w/ HP85650A QP ADAPTOR
VALUES MEASURED WITH QP DETECTOR USING 9kHz BANDWIDTH

FREQUENCY MHz	METER RDG. uV	LIMIT uV
.537	64.5	250
.672	15.4	250
.999	18.6	250
1.796	26.3	250
2.420	24.4	250
3.362	14.9	250
3.724	14.9	250
4.863	15.1	250
5.390	14.9	250
6.141	15.4	250
7.146	15.1	250
8.501	15.4	250
9.268	15.1	250
9.917	15.1	250
11.604	15.1	250
12.495	15.1	250
12.724	15.4	250
13.804	15.1	250
15.545	15.1	250
18.247	15.4	250
18.850	15.1	250
19.203	14.9	250
20.845	15.4	250
22.750	15.1	250
23.575	15.1	250
24.801	15.1	250
26.505	15.4	250
28.066	18.6	250
29.739	15.1	250

CHECKED BY: F. Bowes
F. BOWES

ETR 20707

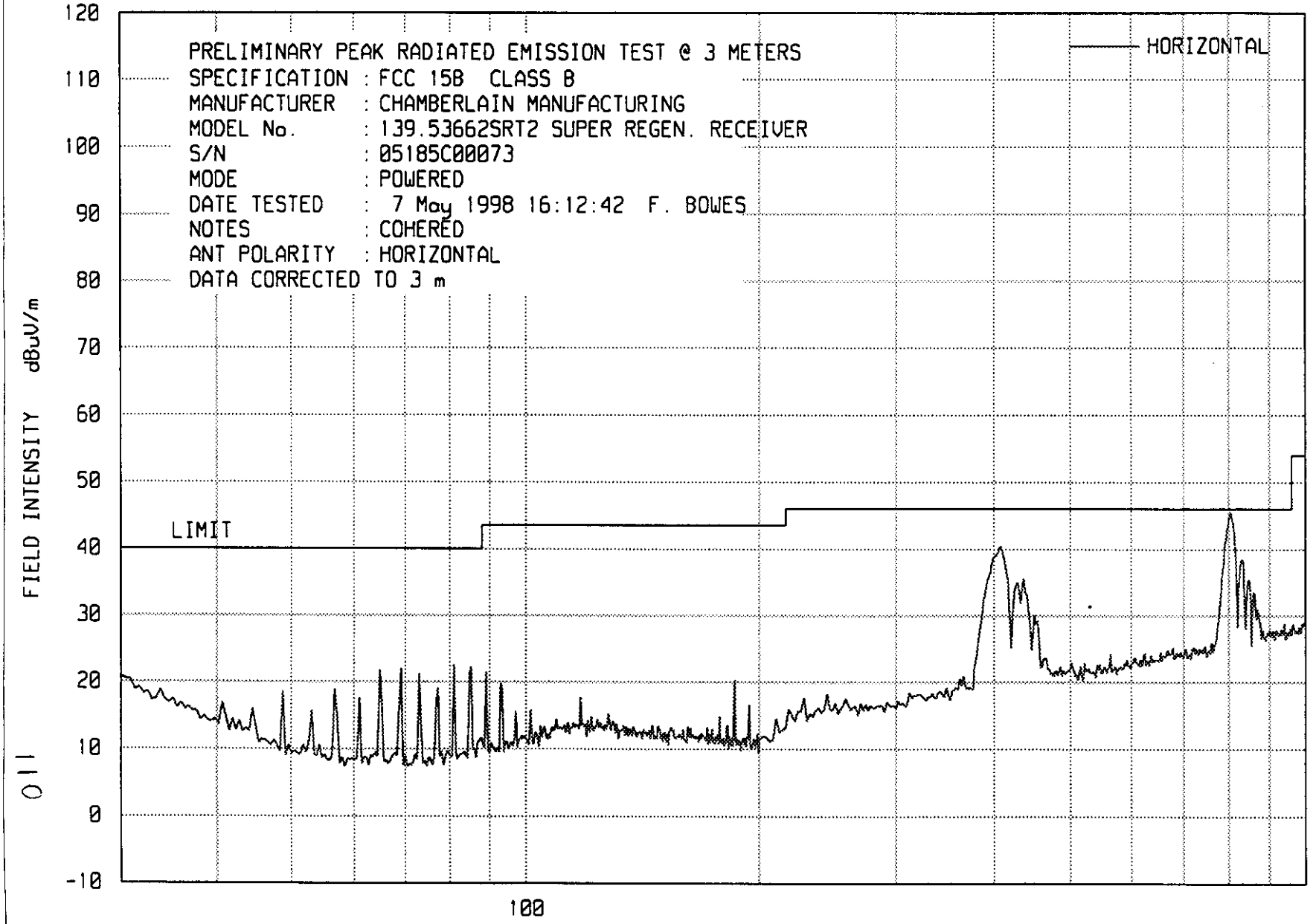

ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515
8546A RE RUN 1
W080 1/20/98
PRELIMINARY PEAK RADIATED EMISSION TEST @ 3 METERS
SPECIFICATION : FCC 15B CLASS B
MANUFACTURER : CHAMBERLAIN MANUFACTURING
MODEL No. : 139.53662SRT2 SUPER REGEN. RECEIVER
S/N : 05185C00073
MODE : POWERED
DATE TESTED : 7 May 1998 16:12:42 F. BOWES
NOTES : COHERED
ANT POLARITY : VERTICAL
DATA CORRECTED TO 3 m
VERTICAL
LIMIT
FIELD INTENSITY dBuV/m
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
START = 30
100
FREQUENCY - MHz
STOP = 1000

ELITE ELECTRONIC ENGINEERING Co.

Downers Grove, Ill. 60515

WQ80 1/20/98

8546A RE RUN 1



011

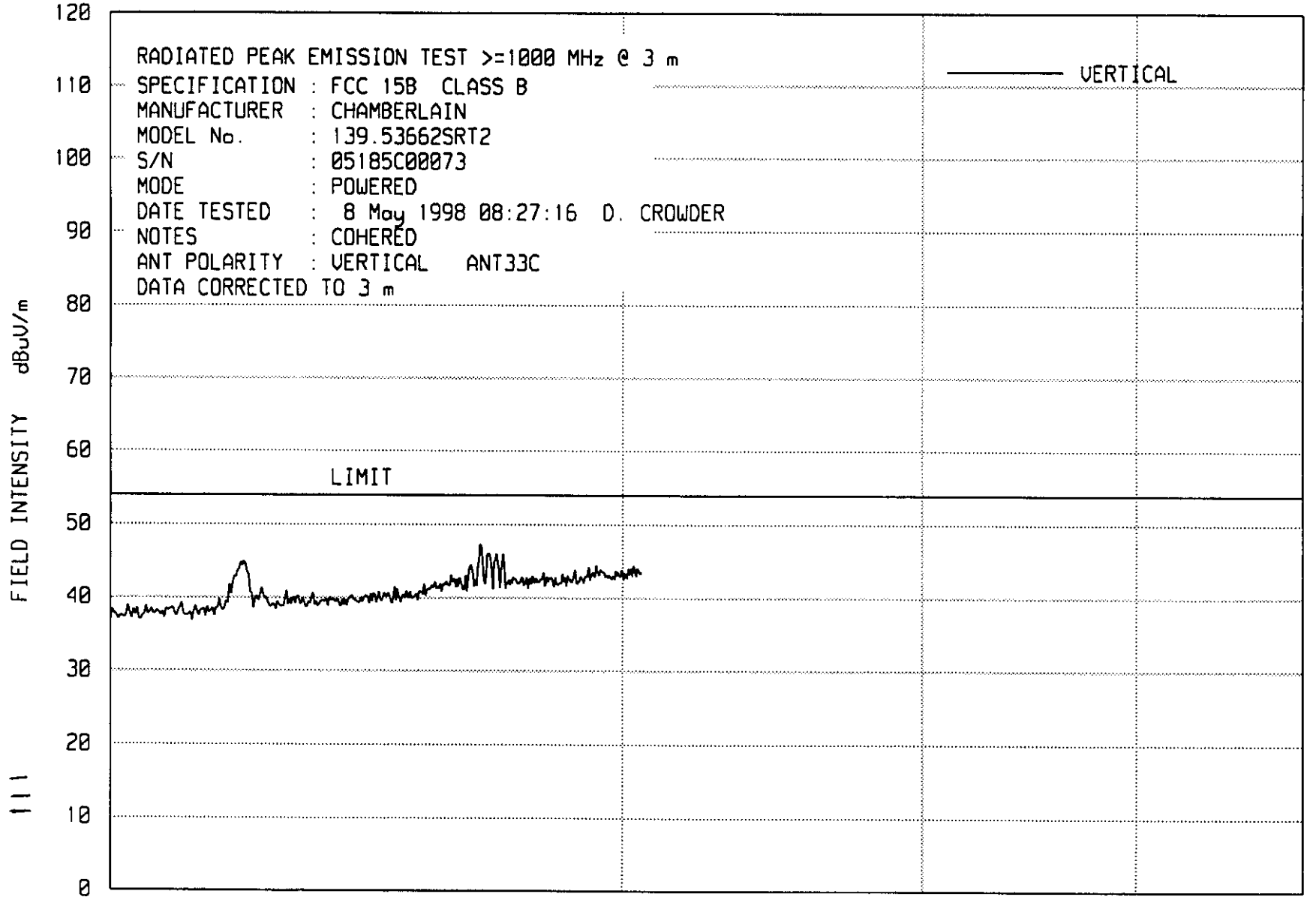
ETR 20707

ELITE ELECTRONIC ENGINEERING Co.

Downers Grove, Ill. 60515

WQC8 12/15/97

8546A HF RUN 1



START = 1000

FREQUENCY - MHz

STOP = 5000

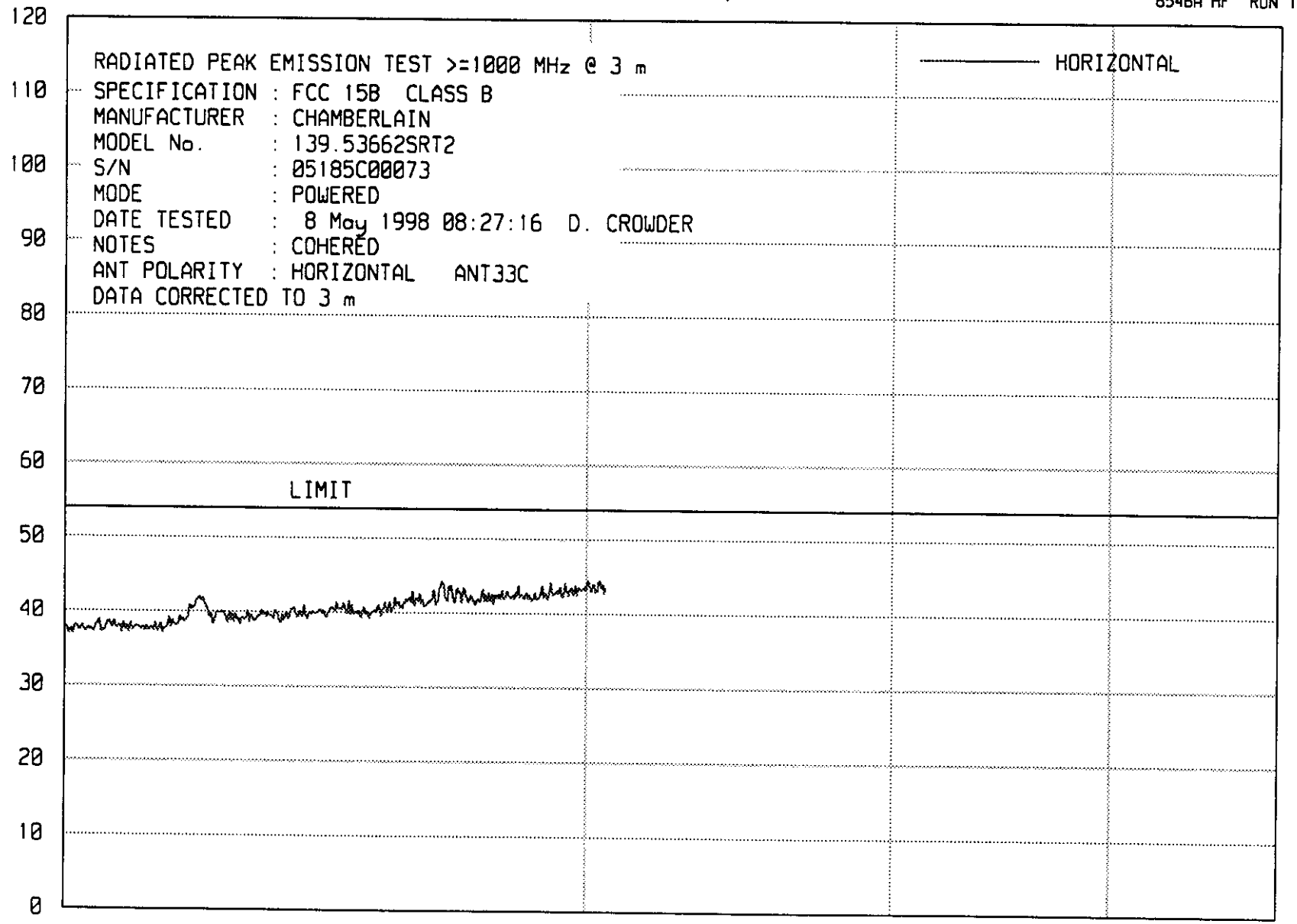
ETR 20707

ELITE ELECTRONIC ENGINEERING Co.

Downers Grove, Ill. 60515

WQC0 12/15/97

8546A HF RUN 1



START = 1000

FREQUENCY - MHz

STOP = 5000

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ETR 20707

ETR No. 20707 8546A
DATA SHEET TEST NO. 1

RADIATED QP EMISSION MEASUREMENTS in a 3 m ANECHOIC ROOM
SPECIFICATION : FCC 15B CLASS B
MANUFACTURER : CHAMBERLAIN MANUFACTURING
MODEL NO. : 139.53662SRT2 SUPER REGEN. RECEIVER
SERIAL NO. : 05185C00073
TEST MODE : POWERED
NOTES : COHERED
TEST DATE : 7 May 1998 16:12:42
TEST DISTANCE : 3 m (DATA EXTRAPOLATED TO 3 m)

FREQUENCY MHz	QP READING dBuV	ANT FAC dB	CBL FAC dB	DIST FAC dB	TOTAL dBuV/m	QP LIMIT dBuV/m	AZ deg	ANT HT cm	POLAR
48.11	14.5	10.2	.7	0.0	25.5	40.0	-0	120	V
64.14	16.4	6.7	.8	0.0	23.9	40.0	60	340	V
80.18	12.8	7.3	.8	0.0	20.9	40.0	300	340	H
116.26	-.4	12.4	1.0	0.0	12.9	43.5	300	200	H
134.40	-.6	11.8	1.1	0.0	12.3	43.5	60	121	V
147.00	-8.5	11.2	1.1	0.0	3.8	43.5	180	121	H
184.43	7.3	9.9	1.3	0.0	18.5	43.5	240	121	H
192.44	2.1	9.8	1.3	0.0	13.3	43.5	180	121	H
371.80	-6.7	15.6	2.1	0.0	11.1	46.0	120	121	H
402.72	21.3	16.3	2.2	0.0	39.8	46.0	60	121	H
570.15	-8.6	18.7	2.9	0.0	13.0	46.0	300	121	H
670.99	-7.3	19.6	3.2	0.0	15.5	46.0	240	200	H
800.40	19.9	20.9	3.5	0.0	44.3	46.0	240	120	H
801.54	19.9	20.9	3.5	0.0	44.3	46.0	240	120	H
933.89	-8.2	22.5	3.8	0.0	18.1	46.0	60	200	H

tested by: F. Bowes
F! BOWES

ETR No. 20707

DATA SHEET HF TEST NO. 1

RADIATED AVG EMISSION MEASUREMENTS >=1000 MHz in a 3 m ANECHOIC ROOM

SPECIFICATION : FCC 15B CLASS B
MANUFACTURER : CHAMBERLAIN
MODEL NO. : 139.53662SRT2
SERIAL NO. : 05185C00073
TEST MODE : POWERED
NOTES : COHERED
TEST DATE : 8 May 1998 08:27:16
TEST DISTANCE : 3 m (DATA EXTRAPOLATED TO 3 m
ANTENNA : ANT33C

FREQUENCY MHz	AVG READING dBuV	ANT FAC dB	CBL FAC dB	DIST FAC dB	TOTAL dBuV/m	AVG LIMIT dBuV/m	AZ deg	ANT HT cm	POLAR
1196.89	5.8	24.6	4.7	0.0	35.1	54.0	180	121	V
1646.25	3.8	25.9	6.0	0.0	35.7	54.0	180	121	V
1647.71	3.9	25.9	6.0	0.0	35.8	54.0	180	121	V
1665.09	3.9	26.0	6.0	0.0	35.9	54.0	180	121	V
1683.29	3.3	26.1	6.1	0.0	35.4	54.0	180	121	V
2052.82	-3.8	0.0	0.0	0.0	-3.8	54.0	240	200	H

tested by: F. Bowen
for D. CROWDER