

EXHIBIT 6

TECHNICAL REPORT

FCC ID # DO4FRAME

TEST REPORT



Accredited by the National Voluntary
Laboratory Accreditation Program for the
specific scope of accreditation under
Lab Code 200074-0

Laboratory ID

PRODUCT SAFETY ENGINEERING, INC.
12955 Bellamy Brothers Boulevard
Dade City, Florida 33525 USA
PH (352) 588-2209 FX (352) 588-2544

Submitter ID

CheckPoint Systems Inc.
101 Wolf Drive

Thorofare, NJ 08086

Report Issue Date: 13 Aug 98
Sample S/N: None

Test Report Number: 98F185A
Model Designation: Frame: (RX) 880520
(TX) 326288

Sample Receipt Date: March 09, 1998

Product Description: Wide aisle RF-based
electronic article
surveillance system

Sample Test Date: see data sheets

Marketing Approval _____

Description of non-standard test method or test practice: *None*

Estimated Measurement Uncertainty: *Not Applicable*

Special limitations of use: *None*

Traceability: *reference standards of measurement have been calibrated by a competent body using standards traceable to the NIST.*

According to testing performed at Product Safety Engineering, Inc., the above-mentioned unit is in compliance with the electromagnetic compatibility requirements defined in regulations indicated on page (3) of the test report. The test results contained herein relate only to the model(s) identified above. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical characteristics.

As the responsible EMC Project Engineer, I hereby declare that the equipment tested as specified above conforms to the requirements indicated on page (3) of the test report.

Signature

Name David Foerstner

Title

Engineering Group Leader

Date

13 AUG 98

Reviewed by:

Approved Signatory

Date

13 Aug 98

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Test Report Number 98F185A

Product Safety Engineering, Inc. 12955 Bellamy Brothers Blvd. Dade City, FL 33525
Tel (352) 588-2209 Fax (352) 588-2544

DIRECTORY - EMISSIONS

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Test Report Number 98F185A

EMISSIONS TEST REGULATIONS :

The emissions tests were performed according to following regulations:

- ☐ - EN 50081-1 : 1992
- ☐ - EN 50081-2 : 1995
- ☐ - EN 55011 : 1991
 - ☐ - Group 1
 - ☐ - Class A
 - ☐ - Group 2
 - ☐ - Class B
- ☐ - EN 55014 : 1993
 - ☐ - Household appliances and similar
 - ☐ - Portable tools
 - ☐ - Semiconductor devices
- ☐ - EN 55022 : 1994 / A1:1995
- ☐ - AS/NZS 3548:1992
 - ☐ - Class A
 - ☐ - Class A
 - ☐ - Class A
 - ☐ - Class B
 - ☐ - Class B
 - ☐ - Class B
- ☐ - VCCI : 1986
 - ☐ - Class A
 - ☐ - Class B
- ☒ - FCC Part 15
 - ☒ - Class A
 - ☒ - Class B
 - ☒ - Certification
 - ☐ - Verification
 - ☐ - Notification
 - ☐ - Declaration of Conformity
- ☒ - FCC Part 15 (Digital Section Only)
 - ☒ - Class A
 - ☐ - Class B
 - ☐ - Certification
 - ☒ - Verification
 - ☐ - Notification
 - ☐ - Declaration of Conformity
- ☐ - FCC Part 18

Test Report Number 98F185A

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Environmental conditions during testing:

	LAB	OATS
Temperature:	_____	: _____
Relative Humidity	_____	: _____
Atmospheric pressure	_____	: _____ millibars
Power supply system	: <u>110</u> Volts <u>60</u> Hz <u>SINGLE</u> phase	

Sign Explanations:

- ☐ - not applicable
- ☒ - applicable

Test Report Number 98F185A

Emissions Test Conditions: CONDUCTED EMISSIONS (Interference Voltage)

The *CONDUCTED EMISSIONS (INTERFERENCE VOLTAGE)* measurements were performed at the following test location:

☐ - Test not applicable

- ☐ - Darby Test Site (Open Area Test Site)
- ☒ - Darby Laboratory

Test equipment used :

Model Number	Manufacturer	Description	Serial Number
☒ - 8028-50	Solar	50 Ω LISN	829012, 829022
☐ - 3825/2	Solar	50 Ω LISN	924840
☒ - EMC-30	Electro-Metrics	EMI Receiver	191
☐ - 8568B	Hewlett-Packard	Spectrum Analyzer	2421A00526
☐ - 85650A	Hewlett-Packard	Quasi-Peak Adapter	2043A00209
☐ - 85662A	Hewlett Packard	Analyzer Display	2403A07352
☐ - 8028-50	Solar	50 Ω LISN	903725, 903726
☐ -			

Emissions Test Conditions: RADIATED EMISSIONS (Magnetic Field)

The *RADIATED EMISSIONS (MAGNETIC FIELD)* measurements were performed at the following test location:

- ☒ - Darby Test Site (Open Area Test Site)
- ☐ -
- ☐ -

at a test distance of :

- ☐ - 3 meters
- ☒ - 30 meters

☐ - Test not applicable

Test equipment used :

Model Number	Manufacturer	Description	Serial Number
☐ - 96005	Eaton	Log Periodic Antenna	1099
☐ - BIA-25	Electro-Metrics	Biconical Antenna	4283
☒ - 8568B	Hewlett-Packard	Spectrum Analyzer	2421A00526
☒ - 85662A	Hewlett-Packard	Analyzer Display	2403A07352
☒ - 85650A	Hewlett-Packard	Quasi-Peak Adapter	2043A00209
☒ - ALR-30M	Electro-Metrics	Loop Antenna	824
☒ - 8447D	Hewlett Packard	Preamplifier	2944A06832
☒ - EMC-30	Electro-Metrics	EMI Receiver	191

Test Report Number 98F185A

Emissions Test Conditions: RADIATED EMISSIONS (Electric Field)

The *RADIATED EMISSIONS (ELECTRIC FIELD)* measurements, in the frequency range of 30 MHz-1000 MHz, were tested in a horizontal and vertical polarization at the following test location :

☐ - Test not applicable

- ☒ - Darby Site (Open Area Test Site)
- ☐ - Darby Lab
- ☐ -

at a test distance of :

- ☒ - 3 meters (FCC-B)
- ☒ - 10 meters (FCC-A)
- ☐ - 30 meters

Test equipment used :

Model Number	Manufacturer	Description	Serial Number
☒ - 96005	Eaton	Log Periodic Antenna	1099
☒ - BIA-25	Electro-Metrics	Biconical Antenna	4283
☒ - 8566B	Hewlett-Packard	Spectrum Analyzer	2421A00526
☒ - 85662A	Hewlett-Packard	Analyzer Display	2403A07352
☒ - 85650A	Hewlett-Packard	Quasi-Peak Adapter	2043A00209
☒ - 8447D	Hewlett-Packard	Preamplifier (26dB)	2944A06832
☐ - EMC-30	Electro-Metrics	EMI Receiver	191
☐ - 8568B	Hewlett Packard	Spectrum Analyzer	2407A03213
☐ - 85650A	Hewlett Packard	Quasi-Peak Adapter	2043A00358
☐ - 85662A	Hewlett Packard	Analyzer Display	2340A05806
☐ - LPA30	EM LPA	Log Periodic	2280

Emissions Test Conditions): INTERFERENCE POWER

The *INTERFERENCE POWER* measurements were performed by using the absorbing clamp on the mains and interface cables in the frequency range 30 MHz - 300 MHz at the following test location :

☒ - Test not applicable

- ☐ - Darby Lab
- ☐ -
- ☐ -
- ☐ -
- ☐ -

Test equipment used :

Model Number	Manufacturer	Description	Serial Number
☐ - MDS-21	Rhode&Schwarz	Absorbing Clamp	8608447020
☐ - 8566B	Hewlett-Packard	Spectrum Analyzer	2421A00526
☐ - 85662A	Hewlett-Packard	Analyzer Display	2403A07352
☐ - 85650A	Hewlett-Packard	Quasi-Peak Adapter	2043A00209
☐ - 8447D	Hewlett-Packard	Amplifier (26 dB)	2944A06832

Test Report Number 98F185A

The **EQUIVALENT RADIATED EMISSIONS** measurements in the frequency range GHz - GHz were performed in a horizontal and vertical polarization at the following test location :

☐ - Darby Test Site (Open Area Test Site)

☐ -
☐ -
☐ -

at a test distance of:

☐ - 1 meters
☐ - 3 meters
☐ - 10 meters

☒ - Test not applicable

Test equipment used :

	Model Number	Manufacturer	Description	Serial Number
☐ -	8566B	Hewlett-Packard	Spectrum Analyzer	2618A02898
☐ -	85662A	Hewlett-Packard	Analyzer Display	2542A11984
☐ -	85650A	Hewlett-Packard	Quasi-Peak Adapter	2043A00209
☐ -	8449B	Hewlett-Packard	Preamplifier	3008A00320
☐ -	3115	Electro-Mechanics	Double Ridge Guide Horn	3810

Test Report Number 98F185A

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Equipment Under Test (EUT) Test Operation Mode - Emission tests :

The device under test was operated under the following conditions during emissions testing:

- ☐ - Standby
- ☐ - Test program (H - Pattern)
- ☐ - Test program (color bar)
- ☐ - Test program (customer specific)
- ☐ - Practice operation
- ☒ - Normal Operating Mode
- ☐ -

Configuration of the device under test:

- ☒ - See System Under Test Information in Appendix B

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Emission Test Results:

Conducted emissions 450 kHz - 30 MHz

The requirements are	☒ - MET	☐ - NOT MET
Minimum limit margin	27.0 dB	at 9.05 MHz
Maximum limit exceeding		at MHz
Remarks:		

Radiated emissions (magnetic field) 10 kHz - 30 MHz

The requirements are	☒ - MET	☐ - NOT MET
Minimum limit margin	1.0 dB QP	at 8.98 MHz
Maximum limit exceeding		at MHz
Remarks:		

Radiated emissions (electric field) 30 MHz - 1000 MHz

The requirements are	☒ - MET	☐ - NOT MET
Minimum limit margin	4.7 dB	at 35.9 MHz
Maximum limit exceeding		at MHz
Remarks:	FCC-B, FCC-A -8.2 dB @ 880.0 MHz	

Interference Power at the mains and interface cables 30 MHz - 300 MHz

The requirements are	☐ - MET	☐ - NOT MET
Minimum limit margin		at MHz
Maximum limit exceeding		at MHz
Remarks:		

Radiated emissions GHz - GHz

The requirements are	☐ - MET	☐ - NOT MET
Minimum limit margin		at GHz
Maximum limit exceeding		at GHz
Remarks:		

Test Report Number 98F185A

GENERAL REMARKS:

SUMMARY:

The requirements according to the technical regulations are

■ - met

□ - not met.

The device under test does

■ - fulfill the general approval requirements mentioned on page 3.

□ - not fulfill the general approval requirements mentioned on page 3.

Testing Start Date March 13, 1998

Testing End Date: March 13, 1998

- PRODUCT SAFETY ENGINEERING INC -

Test Report Number 98F185A

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Test-setup photo(s):

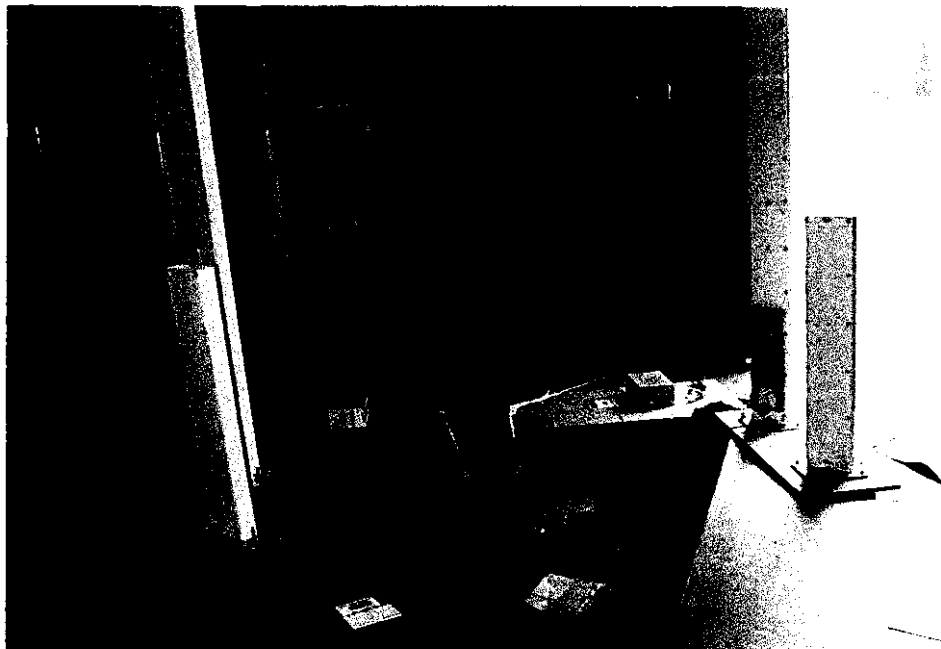
Conducted emission 450 kHz - 30 MHz



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Test-setup photo(s):
Radiated emission 10 KHz - 1000 MHz



Test Report Number 98F185A

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APPENDIX

A

Test Equipment Calibration Information & Test Data Sheets

TEST EQUIPMENT CALIBRATION INFORMATION

Manufacturer	Model	Description	Serial Number	Cal Due
Hewlett Packard	8566B	Spectrum Analyzer	2421A00526	12/29/98
Hewlett Packard	85662A	Display	2403A07352	12/29/98
Hewlett Packard	85650A	Quasi-Peak Adapter	2043A00209	12/29/98
Hewlett Packard	8447D	Preamp 0.1 - 1,000 MHz	2944A06832	06/30/98
Hewlett Packard	8568B	Spectrum Analyzer	2407A03213	05/13/98
Hewlett Packard	85662A	Display	2340A05806	05/13/98
Hewlett Packard	85650A	Quasi-Peak Adapter	2043A00358	04/14/98
Hewlett Packard	8447D	Preamp 0.1 - 1,000 MHz	2944A06901	03/23/98
Hewlett Packard	8447D	Preamp 0.1 - 1,000 MHz	1937A03247	04/24/98
Hewlett Packard	8449B	Preamp 1 - 26.5 GHz	3008A00320	12/02/98
Hewlett Packard	8648B	Signal Generator	3443U00312	04/29/98
Hewlett Packard	8672A	Signal Generator	2211A02426	05/11/98
Hewlett Packard	6842A	Harmonic / Flicker Tester	3531A00149	12/19/98
Eaton	96005	Log Periodic Antenna	1099	09/16/98
Electro-Metrics	LPA 30	Log Periodic Antenna	2280	08/25/98
Electro-Metrics	BIA 30	Biconical Antenna	3852	08/25/98
Electro-Metrics	BIA 25	Biconical Antenna	4283	09/16/98
Electro-Mechanics	3115	Double Ridge Guide Ant.	3810	04/25/98
Electro-Metrics	ALR30M	Magnetic Loop Antenna	824	10/13/98
Solar	8012	LISN	924840	09/14/98
Solar	8028	LISN	829012/809022	09/01/98
Solar	8028	LISN	903725/903726	08/14/98
Schwartzbeck	MDS-21	Absorbing Clamp	02581	10/02/98
Haefely-Trench	PSD25B	ESD Tester	082999-38	01/06/99
Haefely-Trench	PEFT-1	EFT/B Tester	082628-29	01/13/99
Leader	LFG1310	Function Generator	8060233	10/03/98
Haefely-Trench	Psurge 4	Surge Tester	083372-13	10/08/98
Holaday Ind.	HI 4422	Isotropic Probe	90310	02/27/98
IFR Systems	A-8000	Spectrum Analyzer	1306	04/09/98
Fischer Custom	F-33-1	RF Current Probe	360	09/30/99
Electro-Metrics	EMC-30	EMI Receiver	191	09/22/98
Boonton	4220A	RF Power Meter	204103AA	10/15/98
Boonton	51011	RF Power Meter	28823	10/15/98

PRODUCT EMISSIONS

PRODUCT SAFETY ENGINEERING

Data File: FRAME FCC-B FINAL 3-13-98

No	EMISSION FREQUENCY MHz	SPEC LIMIT dBuV/m	MEASUREMENTS			POL	SITE		CORR FACTOR dB	COMMENTS
			ABS	dLIM	MODE		HGT	AZM		
				dB			cm	deg		
1	35.935	40.0	35.3	-4.7	PK	V	150	180		
2	44.905	40.0	30.9	-9.1	PK	V	150	1		
3	53.883	40.0	29.0	-11.0	PK	V	150	180		
4	71.856	40.0	27.0	-13.0	PK	V	150	180		
5	80.837	40.0	24.8	-15.2	PK	V	150	180		
6	125.711	43.5	26.7	-16.8	PK	V	150	180		
7	134.712	43.5	26.0	-17.5	PK	V	150	180		
8	143.685	43.5	28.4	-15.1	PK	V	150	180		
9	599.978	46.0	35.5	-10.5	PK	V	100	315		RECEIVER FCC-A
10	679.973	46.0	44.4	-1.6	QP	V	100	315		RECEIVER FCC-A
11	719.978	46.0	39.3	-6.7	PK	V	100	1		RECEIVER FCC-A
12	759.999	46.0	43.3	-2.7	PK	V	100	1		RECEIVER FCC-A
13	799.964	46.0	42.7	-3.3	PK	V	100	1		RECEIVER FCC-A
14	840.005	46.0	44.0	-2.0	QP	V	100	1		RECEIVER FCC-A
15	878.683	46.0	37.2	-8.9	PK	V	100	1		RECEIVER FCC-A
16	879.976	46.0	46.6	0.6	QP	V	100	1		RECEIVER FCC-A
17	919.974	46.0	46.4	0.4	QP	V	100	1		RECEIVER FCC-A
18	959.966	46.0	41.3	-4.7	PK	V	150	1		RECEIVER FCC-A
19	999.963	54.0	46.1	-7.9	PK	V	150	1		RECEIVER FCC-A

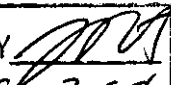
J. TARDY *[Signature]*
DATE: 3-13-98

PRODUCT EMISSIONS

PRODUCT SAFETY ENGINEERING

Data File: FRAME RECEIVER FCC-A FINAL 3-13

No	EMISSION	SPEC	MEASUREMENTS			SITE			CORR	COMMENTS
	FREQUENCY MHz	LIMIT dBuV/m	ABS	dLIM dB	MODE	POL	HGT cm	AZM deg	FACTOR dB	
1	679.975	46.4	35.0	-11.4	PK	V	300	315		RECEIVER FCC-A
2	759.971	46.4	35.7	-10.7	PK	V	300	315		RECEIVER FCC-A
3	799.979	46.4	35.2	-11.2	PK	V	200	180		RECEIVER FCC-A
4	839.966	46.4	35.4	-11.0	PK	V	200	180		RECEIVER FCC-A
5	879.976	46.4	38.2	-8.2	PK	V	200	90		RECEIVER FCC-A
6	919.970	46.4	37.7	-8.7	PK	V	200	90		RECEIVER FCC-A
7	959.976	46.4	34.3	-12.1	PK	V	200	270		RECEIVER FCC-A
8	999.971	49.5	37.7	-11.8	PK	V	200	270		RECEIVER FCC-A

J. TARDY 
DATE: 3-13-98

CheckPoint Systems

Measured @ 30 Meters with loop antenna

Frequency (MHZ)	Spec Limit (dB μ V/M)	Measurement (dB μ V/M)	Δ Limit	Mode
8.98	40	39	-1.0	Quasi-Peak
17.96	29.5	25.0	-4.5	Quasi-Peak
26.94	29.5	26.5	-3.0	Quasi-Peak

PRODUCT SAFETY ENGINEERING

MKR 9.019 MHZ

REF 82.0 dBμV ATTN 0 dB

79.55 dBμV

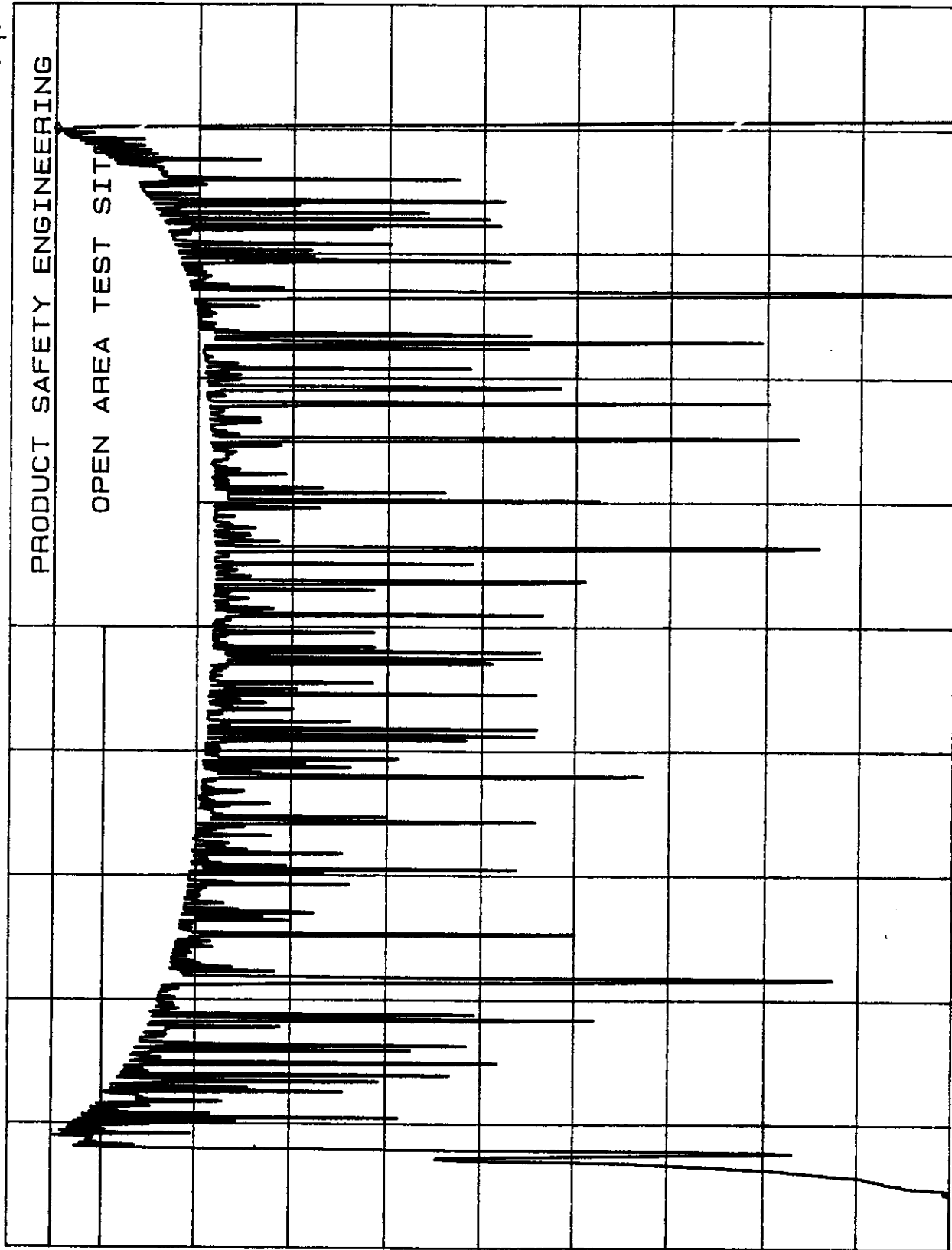
5 dB/

POS PK

DL
79.6
dBμV

PRODUCT SAFETY ENGINEERING

OPEN AREA TEST SITE



CENTER 0.25 MHZ

BFS BW 100 KHZ VBW 100 KHZ

SPAN 1.91 MHZ

SWP 100 msec

Product Safety Engineering

CHECK POINT

Date : 03/13/98
 Technician : MATT EICHEL
 Test Method : FCC-B
 Equipment : FRAME SYSTEM
 Mode of Op. : NORMAL
 Serial No. :

Time : 08:41:38.46
 Test Equip. : EMC-30
 Test Number : 1
 Sensor Loc. : SIDE 1 (TRANSMITTER)
 Sensor Pol. :
 Ext. Atten. : 0 dB

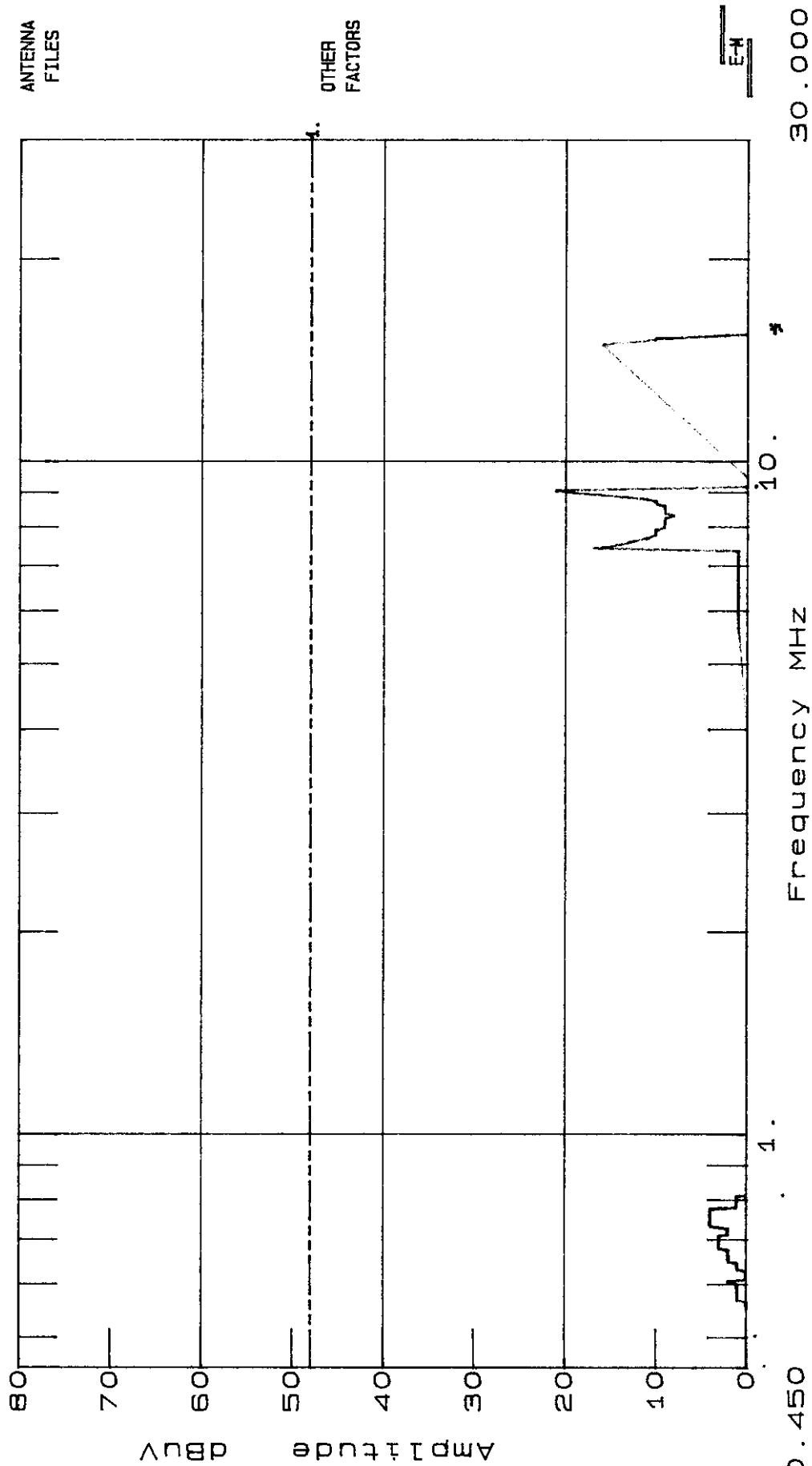
Comment : 120V / 60 HZ

EMC-30 SETTINGS
 Detector QuasiPeak
 Bandwidth CISPR
 Dump/DwellN/A
 RF Atten. 10 dB
 IF Atten. 10 dB

SPECS

1) FCC-B (150 KHz-30 MHz)

M. EICHEL
 DATE: 3-13-98



TEST TITLE:CHECK POINT
DATA FILE :FRAT_SL.D30
Amplitude Units : dBuV

Threshold -35 dB

PAGE 1
Freq.(MHz)
0.4500

Freq(MHz)	Amp	FCC-B15.S30 vs Spec(dB)
7.4406	17.0	-31.000 *
7.4440	16.0	-32.000 *
7.5750	13.0	-35.000 *
7.5817	13.0	-35.000 *
8.8483	13.0	-35.000 *
8.9154	16.0	-32.000 *
8.9825	19.0	-29.000 *
9.0490	21.0	-27.000 *
9.0691	21.0	-27.000 *
14.8874	16.0	-32.000 *

M. EICHEL *ME*
DATE: 3-13-98

Product Safety Engineering

CHECK POINT

Date : 03/13/98
 Technician : MATT EICHEL
 Test Method : FCC-B
 Equipment : FRAME SYSTEM
 Mode of Op. : NORMAL
 Serial No. :

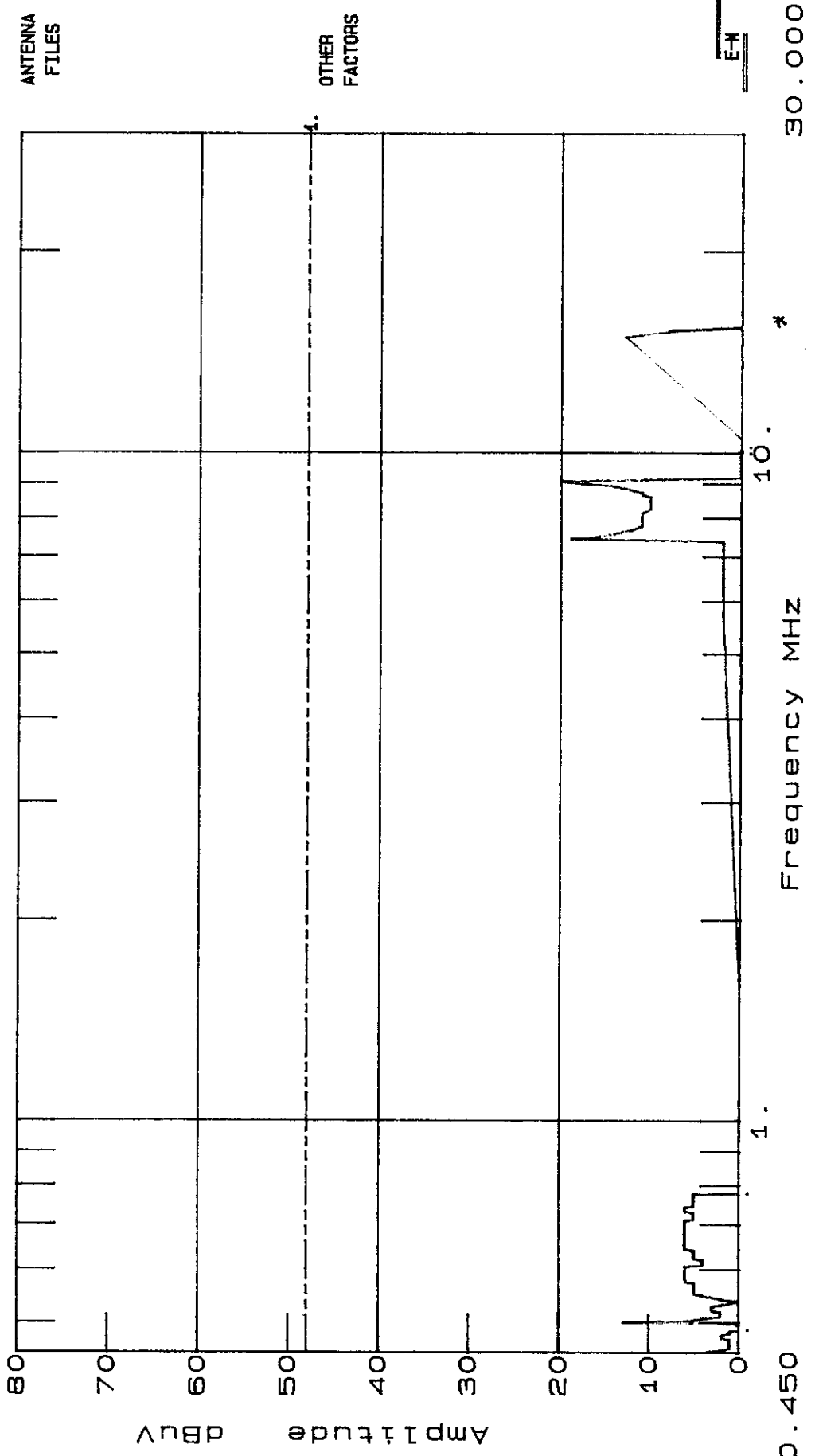
Time : 08:51:52.97
 Test Equip. : EMC-30
 Test Number : 1
 Sensor Loc. : SIDE 2 (TRANSMITTER)
 Sensor Pol. :
 Ext. Atten. : 0 dB

EMC-30 SETTINGS
 Detector QuasiPeak
 Bandwidth CISPR
 Dump/DwellIN/A
 RF Atten. 10 dB
 IF Atten. 10 dB

SPECS
 1) FCC-B (150 KHz-30 MHz)
 2)
 3)
 4)

M. EICHEL
 DATE: 3-13-98

Comment : 120V / 60 HZ



TEST TITLE:CHECK POINT
DATA FILE :FRAT_SN.D30
Amplitude Units : dBuV

Threshold -35 dB

PAGE 1
Freq.(MHz)
0.4500

Freq(MHz)	Amp	FCC-B15.S30 vs Spec(dB)
0.5000	13.0	-35.000 *
7.4406	19.0	-29.000 *
7.4473	17.0	-31.000 *
7.5750	14.0	-34.000 *
7.5784	14.0	-34.000 *
8.8483	13.0	-35.000 *
8.9154	14.0	-34.000 *
8.9825	17.0	-31.000 *
9.0490	20.0	-28.000 *
9.0691	20.0	-28.000 *
14.8874	13.0	-35.000 *

M. EICHEL *ME*
DATE: *3-13-98*

Product Safety Engineering

CHECK POINT

Date : 03/13/98
 Technician : MATT EICHEL
 Test Method : FCC-B
 Equipment : FRAME SYSTEM
 Mode of Op. : NORMAL
 Serial No. :

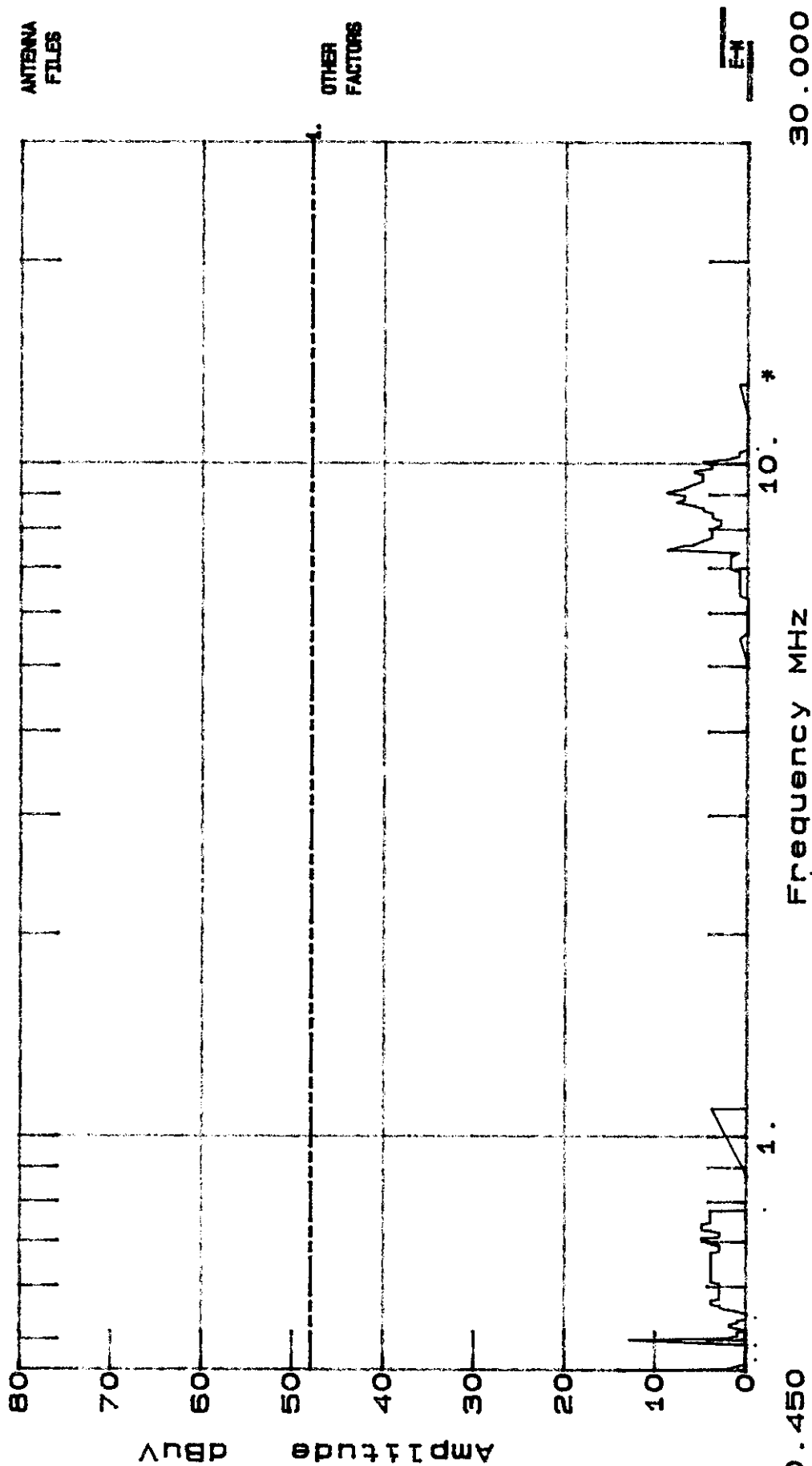
Time : 08:17:07.12
 Test Equip. : EMC-30
 Test Number : 1
 Sensor Loc. : SIDE 1 (RECEIVER)
 Sensor Pol. :
 Ext. Atten. : 0 dB

Comment : 120V / 60 HZ

EMC-30 SETTINGS
 Detector : QuasiPeak
 Bandwidth : CISPR
 Dump/DwellIN/A
 RF Atten. : 10 dB
 IF Atten. : 10 dB

SPECS
 1) FCC-B (150 KHz-30 MHz)
 2)
 3)
 4)

M. EICHEL *ME*
 DATE: 3-13-98



TEST TITLE:CHECK POINT
DATA FILE :FRAR_SL.D30
Amplitude Units : dBuV

Threshold -40 dB

PAGE 1
Freq.(MHz)
0.4500

Freq(MHz)	Amp	FCC-B15.S30 vs Spec(dB)
0.4500	14.0	-34.000 *
0.5000	13.0	-35.000 *
7.4440	9.0	-39.000 *
8.7643	8.0	-40.000 *
9.0490	9.0	-39.000 *
9.0691	9.0	-39.000 *

M. EICHEL *ME*
DATE: *3-13-98*

Product Safety Engineering

CHECK POINT

Date : 03/13/98
 Technician : MATT EICHEL
 Test Method : FCC-B
 Equipment : FRAME SYSTEM
 Mode of Op. : NORMAL
 Serial No. :

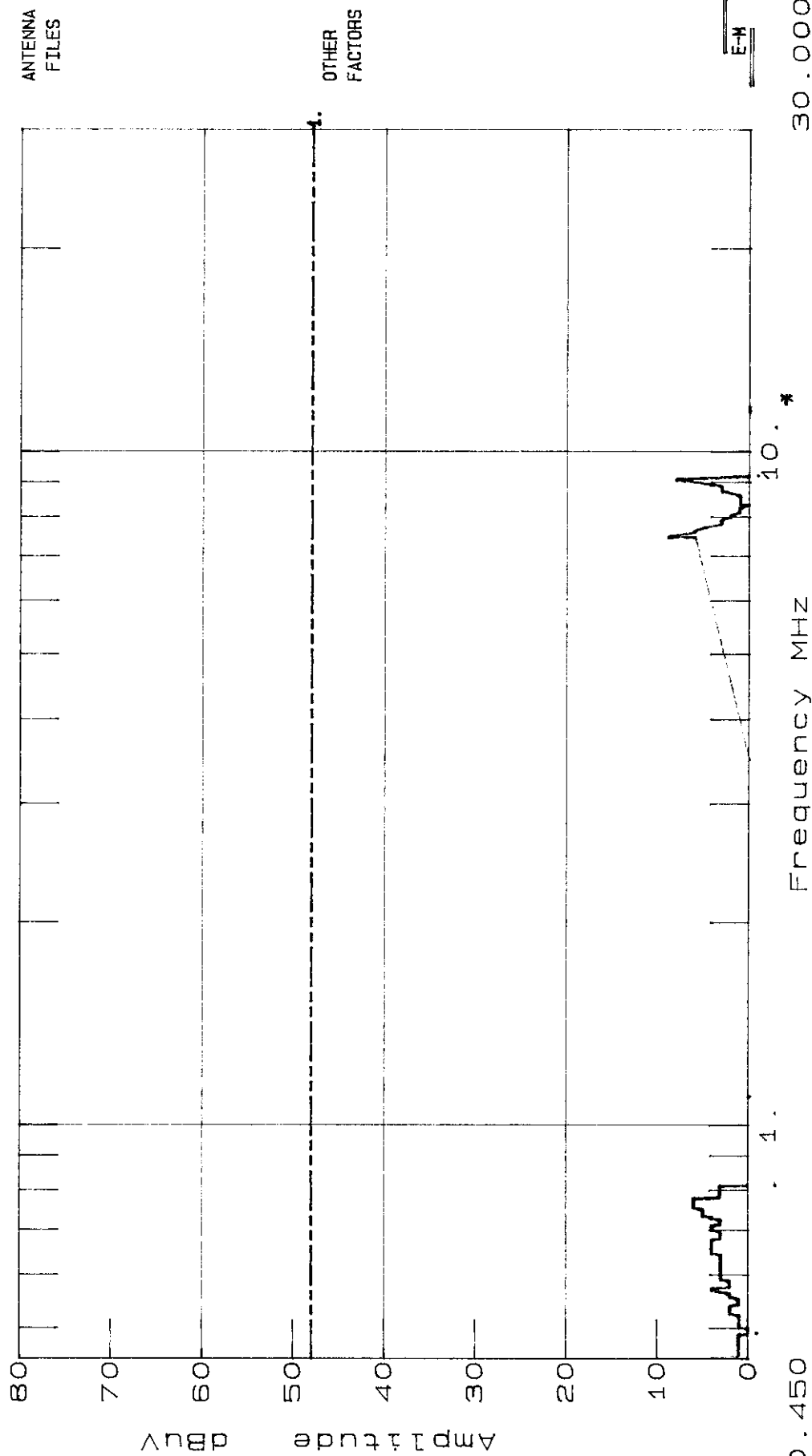
Time : 08:29:04.45
 Test Equip. : EMC-30
 Test Number : 1
 Sensor Loc. : SIDE 2 (RECEIVER)
 Sensor Pol. :
 Ext. Atten. : 0 dB

Comment : 120V / 60 HZ

EMC-30 SETTINGS
 Detector QuasiPeak
 Bandwidth CISPR
 Dump/DwellIN/A
 RF Atten. 10 dB
 IF Atten. 10 dB

SPECS
 1) FCC-B (150 KHz-30 MHz)
 2)
 3)
 4)

M. EICHEL *ME*
 DATE: 3-13-98



0.450

1.

10. *

Frequency MHz

30.000

A13

TEST TITLE:CHECK POINT
DATA FILE :FRAR_SN.D30
Amplitude Units : dBuV

Threshold -43 dB

PAGE 1
Freq.(MHz)
0.4500

Freq(MHz)	Amp	FCC-B15.S30 vs Spec(dB)
0.7320	5.0	-43.000 *
0.7354	5.0	-43.000 *
0.7388	5.0	-43.000 *
0.7422	5.0	-43.000 *
0.7456	5.0	-43.000 *
0.7490	5.0	-43.000 *
0.7524	6.0	-42.000 *
0.7558	6.0	-42.000 *
0.7592	6.0	-42.000 *
0.7626	6.0	-42.000 *
0.7660	6.0	-42.000 *
0.7694	6.0	-42.000 *
0.7728	6.0	-42.000 *
0.7762	6.0	-42.000 *
7.4406	6.0	-42.000 *
7.4440	9.0	-39.000 *
7.5750	6.0	-42.000 *
7.5817	6.0	-42.000 *
7.6893	5.0	-43.000 *
8.9825	6.0	-42.000 *
9.0490	8.0	-40.000 *
9.0691	8.0	-40.000 *

M. EICHEL *ME*
DATE: *3-13-98*

APPENDIX

B

System Under Test Description

SYSTEM COMPONENTS

DEVICE TYPE: POWER SUPPLY #1, CHECKPOINT MODULE K-1
S/N 085779 REFERENCE 913281

DEVICE TYPE: POWER SUPPLY #2, CHECKPOINT MODULE K-1
S/N 085803 REFERENCE 913281

DEVICE TYPE: RECEIVER, CHECKPOINT FRAME SYSTEM
M/N: 880520

DEVICE TYPE: TRANSMITTER, CHECKPOINT FRAME SYSTEM
M/N: 326288

S/N 085779

S/N 085803

M/N 880520

M/N 326288

M/N 880520

M/N 326288

M/N 880520

M/N 326288

M/N 880520

M/N 326288

INTERFACE CABLES

DEVICE TYPE: RECEIVER
SHIELD: YES
LENGTH: 12 FEET
CONNECTOR TYPE: DEDICATED TO DEDICATED
PORT: POWER SUPPLY #1 TO BIG TOWER

DEVICE TYPE: RECEIVER
SHIELD: NO
LENGTH: 2 FEET
CONNECTOR TYPE: DEDICATED TO DEDICATED
PORT: ANTENNA, CONNECTED FROM RECEIVER TO 2 ELEMENT

DEVICE TYPE: TRANSMITTER
SHIELD: YES
LENGTH: 12 FEET
CONNECTOR TYPE: DEDICATED TO DEDICATED
PORT: POWER SUPPLY #2 TO BIG TOWER

DEVICE TYPE: TRANSMITTER
SHIELD: NO
LENGTH: 2 FEET
CONNECTOR TYPE: DEDICATED TO DEDICATED
PORT: CONNECTED FROM TRANSMITTER TO 2 ELEMENT

DEVICE TYPE: TRANSMITTER
SHIELD: NO
LENGTH: 2 FEET
CONNECTOR TYPE: DEDICATED TO DEDICATED
PORT: METAL PLATE CONNECTION

AC LINE CORDS

DEVICE TYPE: POWER SUPPLY, TRANSMITTER

SHIELD: YES AND FILTERED

LENGTH: 6 FEET

CONNECTOR TYPE: DEDICATED TO DEDICATED

DEVICE TYPE: POWER SUPPLY, RECEIVER

SHIELD: YES AND FILTERED

LENGTH: 6 FEET

CONNECTOR TYPE: DEDICATED TO DEDICATED

APPENDIX

C

Measurement Protocol

The test methodology followed during the collection of the data included within this technical report was ANSI C63.4:1992.

The EUT was powered with (120) VAC / (60) Hz during the collection of data included within.

The data is compared to the FCC Class B limits.

The "EMI" instrumentation is capable of calculating the final emission level based on the following formula:

Level at the receiver (dB μ V) + Antenna Correction Factor (dB/M) + Cable Loss (dB) - Preamp Gain (dB) = Actual Level in dB μ V/M.

The sample calculation below is based on the actual test data collected:

Observed Level		48.6	dB μ V	
ACF	+	12.0	dB/M	
Cable Loss	+	0.7	dB	
Preamp Gain	-	<u>26.0</u>	dB	
Actual Level		35.3	dB μ V/M	@ 35.9 MHz

Please have a company official review this report and sign.

EXHIBIT 5

THEORY OF OPERATION
&
TUNE UP INSTRUCTIONS

FCC ID # DO4FRAME
