TEST REPORT

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
Equitrac Corporation
1000 South Pine Island Rd
Suite 900
Plantation, FL 33325

Report Issue Date: 12 Oct 2011
Sample S/N: PC369667

Test Report Number: 11F302C
Model Designation: PC-Copy See page (10) for additional models

Sample Receipt Date: 02 Sep 2011
Sample Test Date: see data sheets

Product Description: Page Counter Terminal
FCC ID: Z89-10554001

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 Chip Foerstner

Title Test Engineer Date _____

Reviewed by:
Approved Signatory _____ Steve Hoke Date 12 OCT 2011

D I R E C T O R Y - EMISSIONS

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

EMISSIONS TEST REGULATIONS :

The emissions tests were performed according to following regulations:

□ - EN 61000-6-3:2001

■ -RSS-210 Issue 7

□ - EN 55011 : 2006 /A2:2007	□ - Group 1	□ - Group 2
	□ - Class A	□ - Class B
■ - EN 300 330-2 V1.5.1		
□ - EN 55014 -1: 2001/A1:2001 A2:2002	□ - Household appliances and similar	
	□ - Portable tools	
	□ - Semiconductor devices	
■ - EN 55022:2006/A1:2007	■ - Class A	□ - Class B
■ -CISPR 22:2005/A1:2005	■ - Class A	□ - Class B
■ - ICES-003	■ - Class A	□ - Class B
□ - CNS 13438	□ - Class A	□ - Class B
□ - VCCI V-3/2007.4	□ - Class A	□ - Class B
■ - FCC Part 15 Subpart B	■ - Class A	□ - Class B
	□ - Certification □ - Verification ■ - Declaration of Conformity	
■ - FCC Part 15.209	■ - Certification	

Report Revision History

Release	Issue Date	Comments
Original	09/23/2011	NA
Revision 1	09/28/2011	Added additional model numbers
Revision 2	10/12/2011	(30-1,000) MHz retest with different peripherals

Environmental conditions during testing:

	LAB	OATS
Temperature: *	_____	: _____
Relative Humidity: **	_____	: _____

* The ambient temperature during the testing was within the range of (50° - 104° F) unless indicted above.
** The humidity levels during the testing was within the range of (10% - 90%) relative humidity unless indicated above.

Power supply system : 115 / 60 & 230 / 50

Sign Explanations:

□ - not applicable
■ - applicable

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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
□ -	8566B	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
□ -	FCC-TLISN-T4-02	Fisher Custom Com.	Telecom ISN	20454
□ -	FCC-TLISN-T8-02	Fisher Custom Com.	Telecom ISN	20452

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
■ - 10 meters

□ - Test not applicable

Test equipment used :

	Model Number	Manufacturer	Description	Serial Number
□ -	3148	EMCO	Log Periodic Antenna	00044783
□ -	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
□ -	ALR-30M	Electro-Metrics	Loop Antenna	824
■ -	8447D	Hewlett Packard	Preamplifier	2944A06832
□ -	EMC-30	Electro-Metrics	EMI Receiver	191
■ -	ALA-130/A	Antenna Research	Loop Antenna	106

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
■ - 10 meters
□ - 30 meters

Test equipment used :

	Model Number	Manufacturer	Description	Serial Number
□ -	HLP 3003C	EMC Automation	Hybrid Periodic Antenna	017501
■ -	8447D	Hewlett-Packard	Preamplifier (26dB)	2944A06832
■ -	8566B	Hewlett-Packard	Spectrum Analyzer	2421A00526
■ -	85662A	Hewlett-Packard	Analyzer Display	2403A07352
■ -	85650A	Hewlett-Packard	Quasi-Peak Adapter	2043A00209
□ -	BIA 25	Electro-Metrics	Biconical Antenna	4283
□ -	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	Electro-Metrics	Log Periodic	2280
■ -	BIA-30	Electro-Metrics	Biconical Antenna	3852
□ -	3104C	EMCO	Biconical Antenna	00075927

Emissions Test Conditions): CONDUCTED EMISSIONS - TELECOMMUNICATIONS PORT

The *INTERFERENCE POWER* measurements were performed in the frequency range 0.15 MHz - 30 MHz at the following test location :

□ - Test not applicable

□ - Darby Lab
□ -

Test equipment used :

	Model Number	Manufacturer	Description	Serial Number
■ -	EMC-30	Electro-Metrics	EMI Receiver	191
□ -	FCC-TLISN-T8-02	Fischer Custom Com	T-LISN	20452
■ -	FCC-TLISN-T4-02	Fischer Custom Com	T_LISN	20454
□ -				
□ -				
□ -				

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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	2421A00526
□ -	85662A	Hewlett-Packard	Analyzer Display	2403A07352
□ -	85650A	Hewlett-Packard	Quasi-Peak Adapter	2043A00209
□ -	8449B	Hewlett-Packard	Preamplifier	3008A00320
□ -	3115	Electro-Mechanics	Double Ridge Guide Horn	3810

The *ANTENNA TERMINAL DISTURBANCE VOLTAGE* in the frequency range 30 MHz - 1,000 MHz were performed.

□ - Darby Test Site (Open Area Test Site)
□ - Laboratory
□ -
□ -

■ - Test not applicable

	Model Number	Manufacturer	Description	Serial Number
□ -	2F9-3C4-3C5	Wavecom	UHF PAL TV Modulator	185879
□ -	2F1-3C4-3C5	Wavecom	VHF PAL TV Modulator	157728
□ -	A-8000	IFR	Spectrum Analyzer	1306
□ -	8648B	Hewlett-Packard	Signal Generator	3623A01433
□ -	8648B	Hewlett-Packard	Signal Generator	3623A01477
□ -	LMV-182A	Leader	RMS Milli-Voltmeter	8010091
□ -	3202	Krhon-Hite	Active filter	5899
□-	FMT115	Leaming	FM Modulator	NONE
□ -	371	UDT	Optical power meter	06657
□ -	TSG95	Tektronix	PAL video / Audio generator	B028883
□-				

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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

Rationale for EUT setup / configuration:

ANSI C63.4

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Emission Test Results:

Conducted emissions 150 kHz - 30 MHz

The requirements are ■ **- MET** □ **- NOT MET**

Minimum limit margin **17** dB at **16.17** MHz
Remarks:

Radiated emissions (magnetic field) 10 kHz - 30 MHz

The requirements are ■ **- MET** □ **- NOT MET**

Minimum limit margin **28.3** dB at **0.125** MHz
Remarks:

Radiated emissions (electric field) 30 MHz - 1000 MHz

The requirements are ■ **- MET** □ **- NOT MET**

Minimum limit margin **1.2** dB at **294.88** MHz
Remarks:

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

The requirements are □ **- MET** □ **- NOT MET**

Minimum limit margin dB at MHz
Remarks:

Radiated emissions GHz - GHz

The requirements are □ **- MET** □ **- NOT MET**

Minimum limit margin dB at GHz
Remarks:

Conducted Emissions - Telecommunications Port 150kHz - 30 MHz

The requirements are ■ **- MET** □ **- NOT MET**

Minimum limit margin **11.0** dB at **18.38** MHz
Remarks:

GENERAL REMARKS:
We made radiated emission measurements between (0.1) MHz and (1,000) MHz. We followed the measurement procedures detailed in ANSI C63.4-2003.

The EUT was placed in the center of a non-conductive table at a height of (0.8) meters above the ground plane. The worst-case radiation for fundamental and spurious radiation was determined by rotating the EUT (360) degrees and scanning the height of the antenna between (1-4) meters for both antenna polarities when measuring above (30) MHz. When measuring below (30) MHz, the loop antenna was at a fixed (1) meter height and rotated (180) degrees. When the highest level was observed, the data was recorded.

All radiated measurements below (30) MHz reported were made with a PEAK detector. All other measurements were made in either peak or quasi-peak as indicated in the test data. The testing was completed with the RFID transmitter operating in a normal mode.

No spurious emissions were found in any restricted bands of operation listed in 15.205.

Models covered by this report:

PC-Copy
PC- XXXXXX
P/N: PC1CFZ00-X denotes a Model PC-COPY W/HID option only
P/N: PC3CFZ00-X denotes a Model PC-COPY W/HID and QWERTY

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 **September 07, 2011**

Testing End Date: **October 11, 2011**

- PRODUCT SAFETY ENGINEERING INC -

Test-setup photo(s):
Conducted emission 150 kHz - 30 MHz

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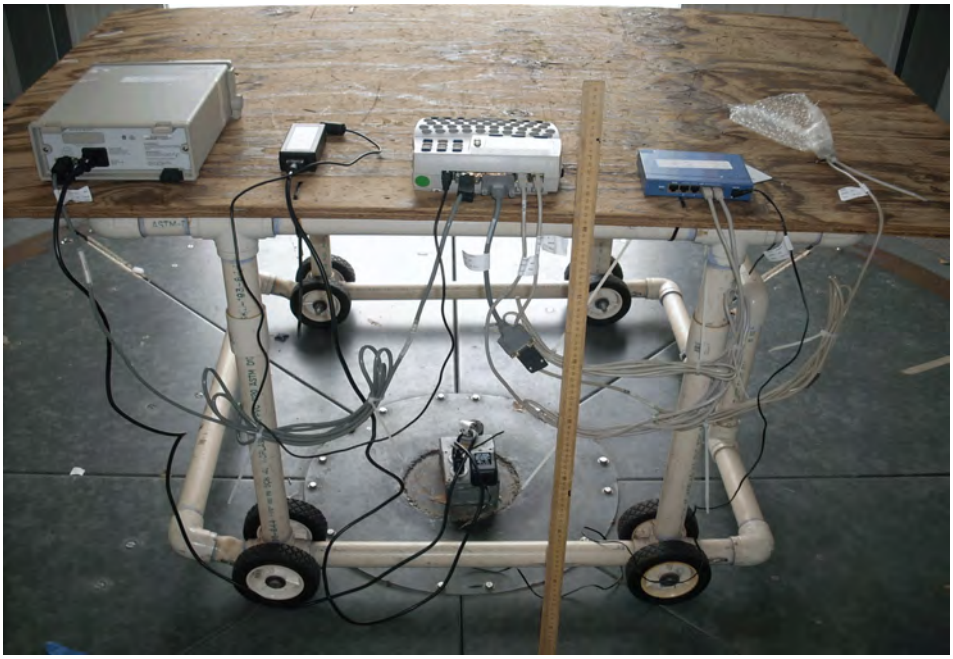
Test-setup photo(s):
Radiated emission 30 MHz - 1000 MHz



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APPENDIX

A

Test Equipment Calibration Information

&

Test Data Sheets

Product Safety Engineering, Inc 12955 Bellamy Brothers Blvd. Dade City, FL 33525
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TEST EQUIPMENT CALIBRATION INFORMATION

Manufacturer	Model	Description	Serial Number	Cal Due
Hewlett Packard	8566B	Spectrum Analyzer	2421A00526	02/03/12
Hewlett Packard	85662A	Display	2403A07352	02/03/12
Hewlett Packard	85650A	Quasi-Peak Adapter	2043A00209	02/03/12
Hewlett Packard	8447D	Preamp 0.1 - 1,000 MHz	2944A06832	02/10/12
Hewlett Packard	8568B	Spectrum Analyzer	2407A03213	
Hewlett Packard	85662A	Display	2340A05806	
Hewlett Packard	85650A	Quasi-Peak Adapter	2043A00358	
Hewlett Packard	8447D	Preamp 0.1 - 1,000 MHz	2944A06901	
Hewlett Packard	8447D	Preamp 0.1 - 1,000 MHz	1937A03247	
Hewlett Packard	8449B	Preamp 1 - 26.5 GHz	3008A00320	
EMCO	3148	Log Periodic Antenna	00044783	
Electro-Metrics	LPA 30	Log Periodic Antenna	2280	02/14/12
Electro-Metrics	BIA 30	Biconical Antenna	3852	04/01/12
Electro-Metrics	BIA 25	Biconical Antenna	4283	
Electro-Mechanics	3115	Double Ridge Guide Ant.	3810	
Electro-Metrics	ALR30M	Magnetic Loop Antenna	824	
Solar	8012	LISN	924840	
Solar	8028	LISN	829012/809022	03/31/12
Solar	8028	LISN	903725/903726	
Schwartzbeck	MDS-21	Absorbing Clamp	02581	
Electro-Metrics	EMC-30	EMI Receiver	191	07/08/12
Antenna Research	ALA-130/A	Loop Antenna	106	
Cole-Palmer	9970-00	Digital Barometer	61493735	
EMC Automation	HLP3003C	Hybrid Log Periodic	017501	
Fischer Custom	FCC-T4-02	Telecom ISN	20454	04/25/12
Fischer Custom	FCC-T8-02	Telecom ISN	20452	

* Cal Due Date Format = MM/DD/YY

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Test Data

Radiated Emissions

(125) kHz

Limit per FCC Part 15.209

(2,400 / F(kHz)) uV/m @ (300) meters

(2,400 / 125) uV/m @ (300) meters = (19.2) uV/m @ (300) meters

20 Log (19.2) = (25.7) dBuV/m @ (300) meters

Limit adjustment extrapolated to (10) meters = 40 Log (300/10) = (59.1) dB

Limit @ (10) meters = (25.7) + (59.1) = (84.8) dBuV/m

Compliance Data

Measured field strength = dBuV +ACF + Cable loss - Preamp Gain

22 dBuV + 58.5 dB + 1.0 - 25 dB = 56.5

Measured field strength of signal @ (125) kHz = (56.5) dBuV/m

Limit - field strength = margin

Margin = (84.8) - (56.5) = (28.3) dB

PRODUCT EMISSIONS

PSE OPEN AREA TEST SITE Data File: EQUITRAC PCCOPY W/HID CIS-A OCT11

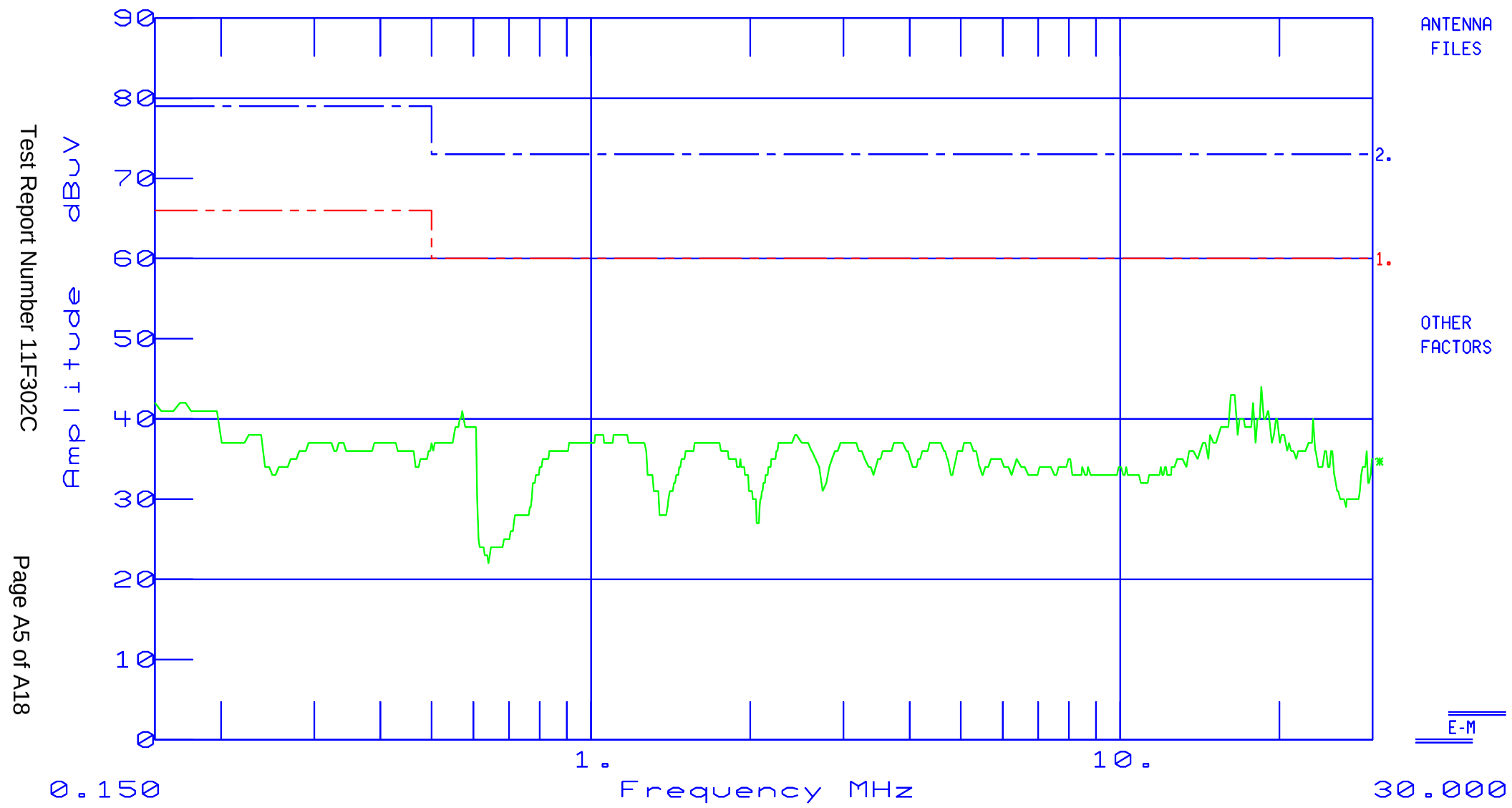
No	EMISSION FREQUENCY MHz	SPEC LIMIT dBuV/m	MEASUREMENTS ABS	dLIM dB	MODE	POL	SITE HGT cm	AZM deg	CORR FACTOR dB	COMMENTS
1	30.157	40.0	35.8	-4.2	QP	V	100	315	-16.2	
2	32.306	40.0	34.3	-5.7	PK	V	150	180	-16.6	
3	36.005	40.0	35.7	-4.4	PK	V	100	225	-17.3	
4	45.621	40.0	34.6	-5.4	QP	V	150	180	-18.2	
5	49.999	40.0	36.3	-3.7	PK	V	100	135	-18.2	
6	64.807	40.0	35.2	-4.8	PK	V	100	225	-19.	
7	66.285	40.0	37.8	-2.2	QP	V	200	315	-19.2	
8	71.999	40.0	35.0	-5.0	PK	V	100	225	-20.3	
9	73.33	40.0	36.0	-4.0	PK	V	100	1	-20.5	
10	82.040	40.0	35.2	-4.8	PK	V	100	1	-21.4	
11	100.000	40.0	33.4	-6.6	PK	H	250	90	-16.6	
12	109.19	40.0	34.9	-5.1	PK	V	100	1	-15.4	
13	122.870	40.0	35.6	-4.4	PK	V	100	1	-14.7	
14	125.001	40.0	33.7	-6.3	PK	V	100	315	-14.9	
15	129.479	40.0	32.2	-7.9	PK	V	100	45	-15.3	
16	143.995	40.0	32.7	-7.3	PK	V	100	1	-14.2	
17	146.629	40.0	33.4	-6.6	PK	V	100	90	-13.9	
18	150.005	40.0	33.3	-6.7	PK	V	100	135	-13.5	
19	154.484	40.0	34.4	-5.6	PK	V	100	45	-13.6	
20	169.510	40.0	30.7	-9.3	PK	V	100	90	-12.5	
21	175.000	40.0	33.8	-6.2	PK	V	100	135	-12.2	
22	185.776	40.0	36.5	-3.5	PK	V	100	135	-11.2	
23	190.939	40.0	36.7	-3.3	PK	V	150	225	-10.6	
24	191.572	40.0	38.0	-2.0	QP	V	100	180	-10.6	
25	198.775	40.0	34.9	-5.1	PK	V	100	180	-10.7	
26	199.982	40.0	34.0	-6.0	QP	H	300	135	-10.7	
27	201.663	40.0	35.9	-4.1	PK	V	100	180	-15.9	
28	221.196	40.0	37.3	-2.7	QP	V	100	225	-15.1	
29	224.994	40.0	37.5	-2.5	QP	V	100	225	-15.	
30	226.830	40.0	35.8	-4.2	PK	V	100	180	-14.9	
31	229.390	40.0	37.3	-2.7	QP	V	100	225	-14.8	
32	245.761	47.0	42.5	-4.5	QP	H	350	225	-14.2	
33	275.000	47.0	42.8	-4.2	QP	V	150	135	-12.3	
34	294.885	47.0	45.8	-1.2	QP	H	350	180	-11.	
35	299.981	47.0	41.2	-5.8	PK	H	300	135	-10.7	
36	324.983	47.0	42.4	-4.6	PK	H	300	135	-10.9	
37	344.045	47.0	43.5	-3.5	QP	H	200	270	-11.3	
38	374.996	47.0	41.0	-6.0	PK	V	200	225	-11.4	
39	399.995	47.0	40.7	-6.3	PK	V	100	315	-11.2	
40	491.507	47.0	41.9	-5.1	PK	H	150	45	-8.6	
41	500.000	47.0	40.9	-6.1	PK	V	100	270	-8.3	
42	699.980	47.0	38.9	-8.1	PK	H	100	225	-4.8	
43	750.009	47.0	40.6	-6.4	PK	V	100	180	-4.6	
44	875.000	47.0	41.8	-5.2	PK	V	100	180	-1.8	
45	924.998	47.0	41.8	-5.2	PK	H	100	135	-1.3	
46	999.999	47.0	39.5	-7.5	PK	H	100	180	0.6	

Product Safety Engineering

EQUITRAC PAGECOUNTER WITH HID

Date :	09/09/11	Time :	06:58:46.82	EMC-30 SETTINGS	SPECS
Technician :	CHIP FOERSTNER	Test Equip. :	EMC-30	Detector QuasiPeak	1) CISPR22 AVERAGE
Test Method :	EN55022 CLASS A	Test Number :	1	Bandwidth CISPR	2) CISPR 22 QUASI PEAK
Equipment :	PC COPY	Sensor Loc. :	SIDE 1	Dump/DwellN/A	3)
Mode of Op. :	NORMAL	Sensor Pol. :		RF Atten. 10 dB	4)
Serial No. :		Ext. Atten. :	0 dB	IF Atten. 10 dB	

Comment : 230 VAC / 50 HZ SINO-AMERICAN POWER SUPPLY MODEL#SA120G-05V



Test Report Number 11F302C

TEST TITLE:EQUITRAC PAGECOUNTER WITH HID
DATA FILE : 302-1
Amplitude Units : dBuV Threshold -22 dB

Freq.(MHz)
0.1500

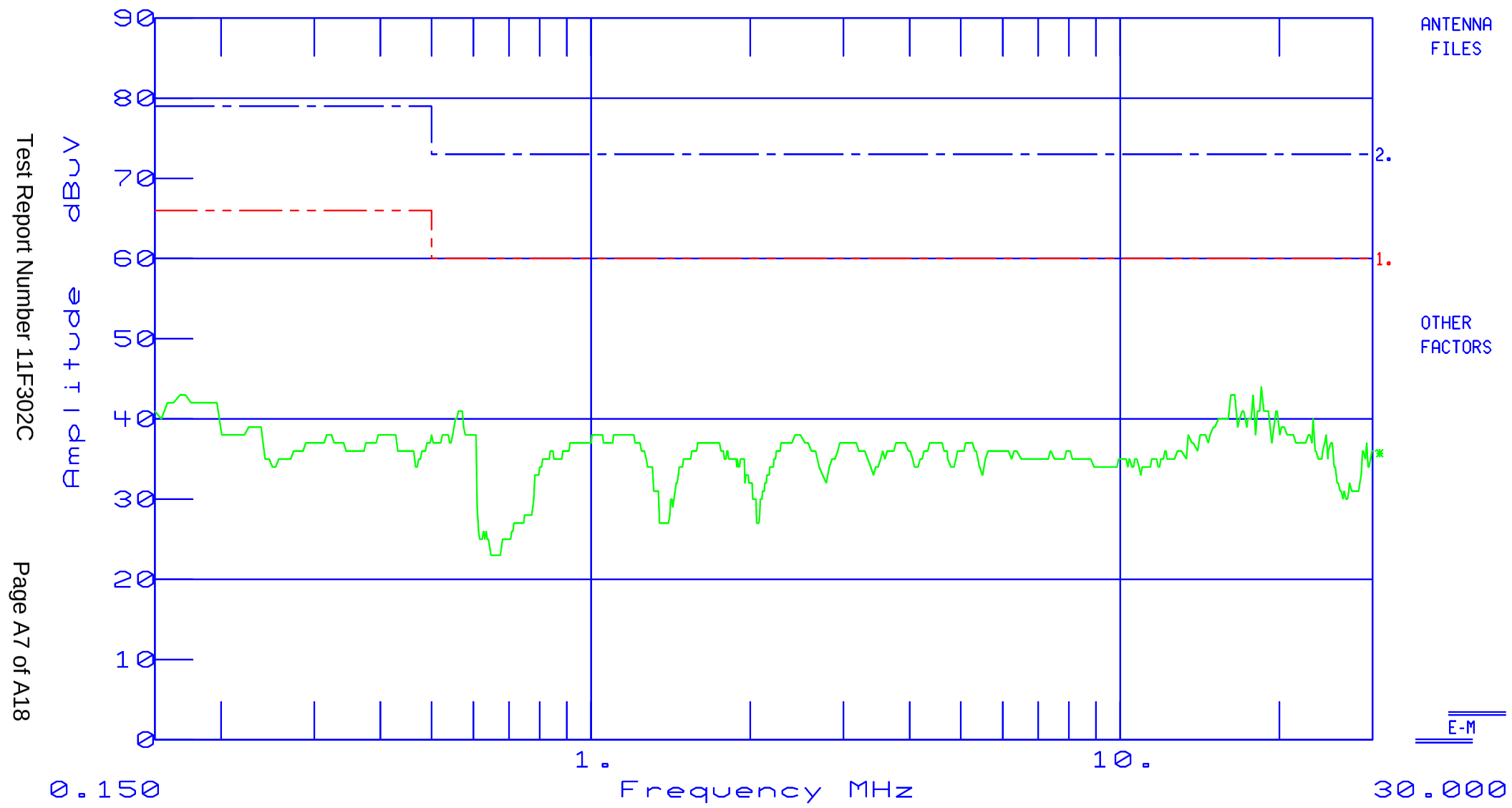
Freq(MHz)	Amp	C22AAVG.S30 vs Spec(dB)	C22AQP.S30 vs Spec(dB)
0.5511	38.0	-22.000 *	
0.5545	39.0	-21.000 *	
0.5580	39.0	-21.000 *	
0.5614	39.0	-21.000 *	
0.5648	40.0	-20.000 *	
0.5682	40.0	-20.000 *	
0.5716	41.0	-19.000 *	
0.5750	40.0	-20.000 *	
0.5791	39.0	-21.000 *	
0.5825	39.0	-21.000 *	
0.5859	39.0	-21.000 *	
0.5893	39.0	-21.000 *	
0.5927	39.0	-21.000 *	
0.5961	39.0	-21.000 *	
0.5995	39.0	-21.000 *	
0.6029	39.0	-21.000 *	
0.6063	39.0	-21.000 *	
1.0180	38.0	-22.000 *	
1.0214	38.0	-22.000 *	
1.0248	38.0	-22.000 *	
1.0279	38.0	-22.000 *	
1.0313	38.0	-22.000 *	
1.0347	38.0	-22.000 *	
1.0381	38.0	-22.000 *	
1.0415	38.0	-22.000 *	
1.0449	38.0	-22.000 *	
1.0483	38.0	-22.000 *	
1.0517	38.0	-22.000 *	
1.0551	38.0	-22.000 *	
1.1034	38.0	-22.000 *	
1.1101	38.0	-22.000 *	
1.1169	38.0	-22.000 *	
1.1237	38.0	-22.000 *	
1.1304	38.0	-22.000 *	
1.1372	38.0	-22.000 *	
1.1439	38.0	-22.000 *	
1.1507	38.0	-22.000 *	
1.1574	38.0	-22.000 *	
1.1642	38.0	-22.000 *	
1.1710	38.0	-22.000 *	
2.4317	38.0	-22.000 *	
2.4458	38.0	-22.000 *	
14.7927	38.0	-22.000 *	
15.3428	38.0	-22.000 *	
15.5105	39.0	-21.000 *	
15.6782	39.0	-21.000 *	
15.7184	39.0	-21.000 *	
16.0102	39.0	-21.000 *	
16.1779	43.0	-17.000 *	
16.3456	43.0	-17.000 *	
16.4664	43.0	-17.000 *	
16.6810	38.0	-22.000 *	
16.8118	40.0	-20.000 *	
17.0158	40.0	-20.000 *	
17.1194	40.0	-20.000 *	
17.2197	39.0	-21.000 *	

Product Safety Engineering

EQUITRAC PAGECOUNTER WITH HID

Date :	09/09/11	Time :	07:34:10.23	EMC-30 SETTINGS	SPECS
Technician :	CHIP FOERSTNER	Test Equip. :	EMC-30	Detector QuasiPeak	1) CISPR22 AVERAGE
Test Method :	EN55022 CLASS A	Test Number :	1	Bandwidth CISPR	2) CISPR 22 QUASI PEAK
Equipment :	PC COPY	Sensor Loc. :	SIDE 2	Dump/DwellN/A	3)
Mode of Op. :	NORMAL	Sensor Pol. :		RF Atten. 10 dB	4)
Serial No. :		Ext. Atten. :	0 dB	IF Atten. 10 dB	

Comment : 230 VAC / 50 HZ SINO-AMERICAN POWER SUPPLY MODEL#SA120G-05V



TEST TITLE:EQUITRAC PAGECOUNTER WITH HID
DATA FILE : 302-2
Amplitude Units : dBuV
Threshold -20 dB

PAGE 1
Freq.(MHz)
0.1500

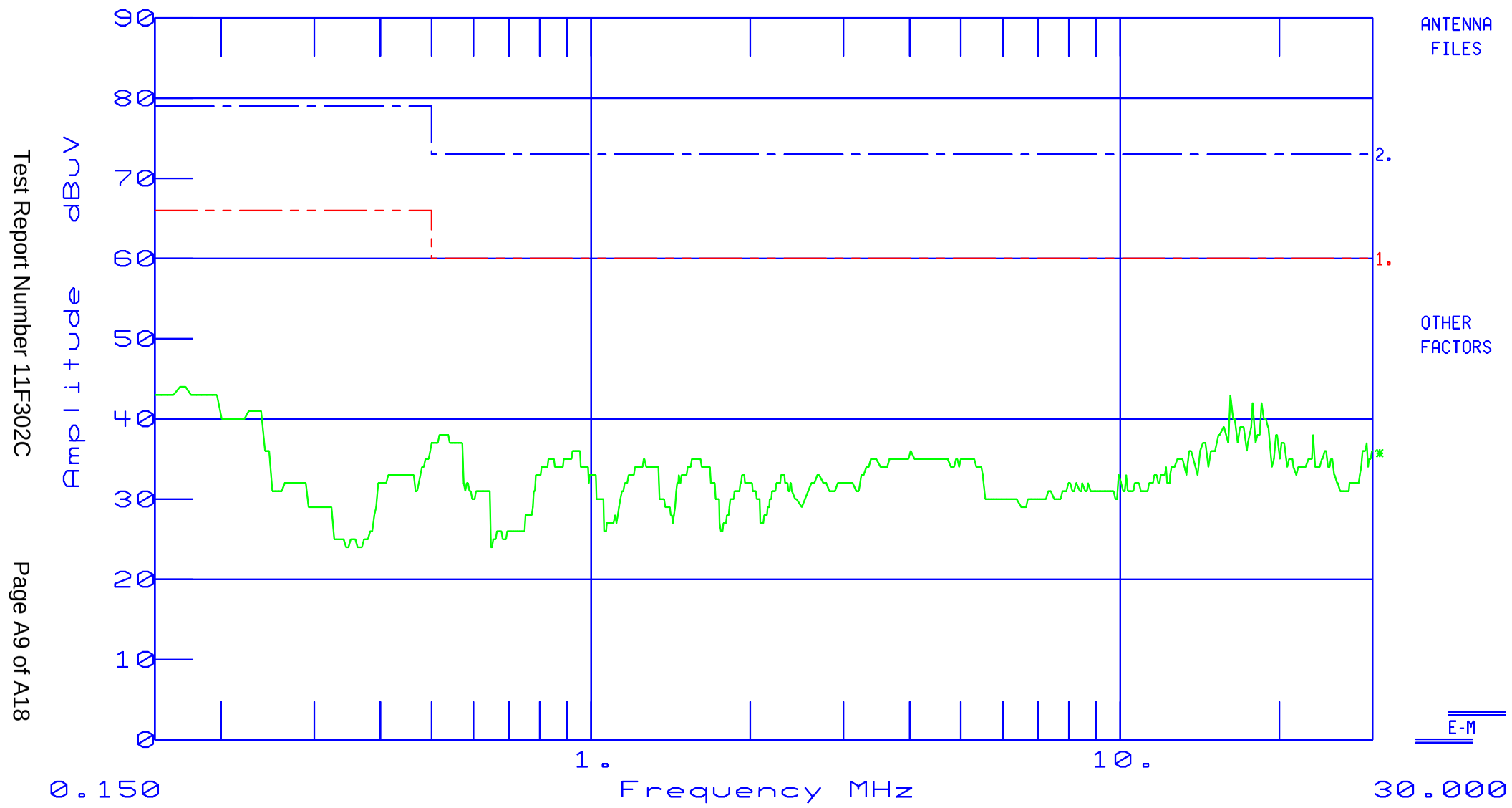
Freq(MHz)	Amp	C22AAVG.S30 vs Spec(dB)	C22AQP.S30 vs Spec(dB)
0.5545	40.0	-20.000 *	
0.5580	40.0	-20.000 *	
0.5614	41.0	-19.000 *	
0.5648	41.0	-19.000 *	
0.5682	41.0	-19.000 *	
0.5716	41.0	-19.000 *	
15.3428	40.0	-20.000 *	
15.4098	40.0	-20.000 *	
15.6782	40.0	-20.000 *	
15.7184	40.0	-20.000 *	
16.0102	40.0	-20.000 *	
16.1779	43.0	-17.000 *	
16.3456	43.0	-17.000 *	
16.4664	43.0	-17.000 *	
16.8118	40.0	-20.000 *	
17.0158	41.0	-19.000 *	
17.1194	41.0	-19.000 *	
17.4269	40.0	-20.000 *	
17.6808	40.0	-20.000 *	
17.8279	43.0	-17.000 *	
18.1721	41.0	-19.000 *	
18.3492	41.0	-19.000 *	
18.4795	44.0	-16.000 *	
18.6834	41.0	-19.000 *	
18.8237	41.0	-19.000 *	
19.0176	41.0	-19.000 *	
19.0610	41.0	-19.000 *	
19.6853	41.0	-19.000 *	
19.8060	41.0	-19.000 *	
23.1665	40.0	-20.000 *	

Product Safety Engineering

EQUITRAC PAGECOUNTER WITH HID

Date :	09/09/11	Time :	09:07:04.40	EMC-30 SETTINGS	SPECS
Technician :	CHIP FOERSTNER	Test Equip. :	EMC-30	Detector QuasiPeak	1) CISPR22 AVERAGE
Test Method :	EN55022 CLASS A	Test Number :	1	Bandwidth CISPR	2) CISPR 22 QUASI PEAK
Equipment :	PC COPY	Sensor Loc. :	LINE	Dump/DwellN/A	3)
Mode of Op. :	NORMAL	Sensor Pol. :		RF Atten. 10 dB	4)
Serial No. :		Ext. Atten. :	0 dB	IF Atten. 10 dB	

Comment : 120 VAC / 60 HZ SINO-AMERICAN POWER SUPPLY MODEL#SA120G-05V



TEST TITLE:EQUITRAC PAGECOUNTER WITH HID
DATA FILE : 302-L
Amplitude Units : dBuV
Threshold -22 dB

PAGE 1
Freq.(MHz)
0.1500

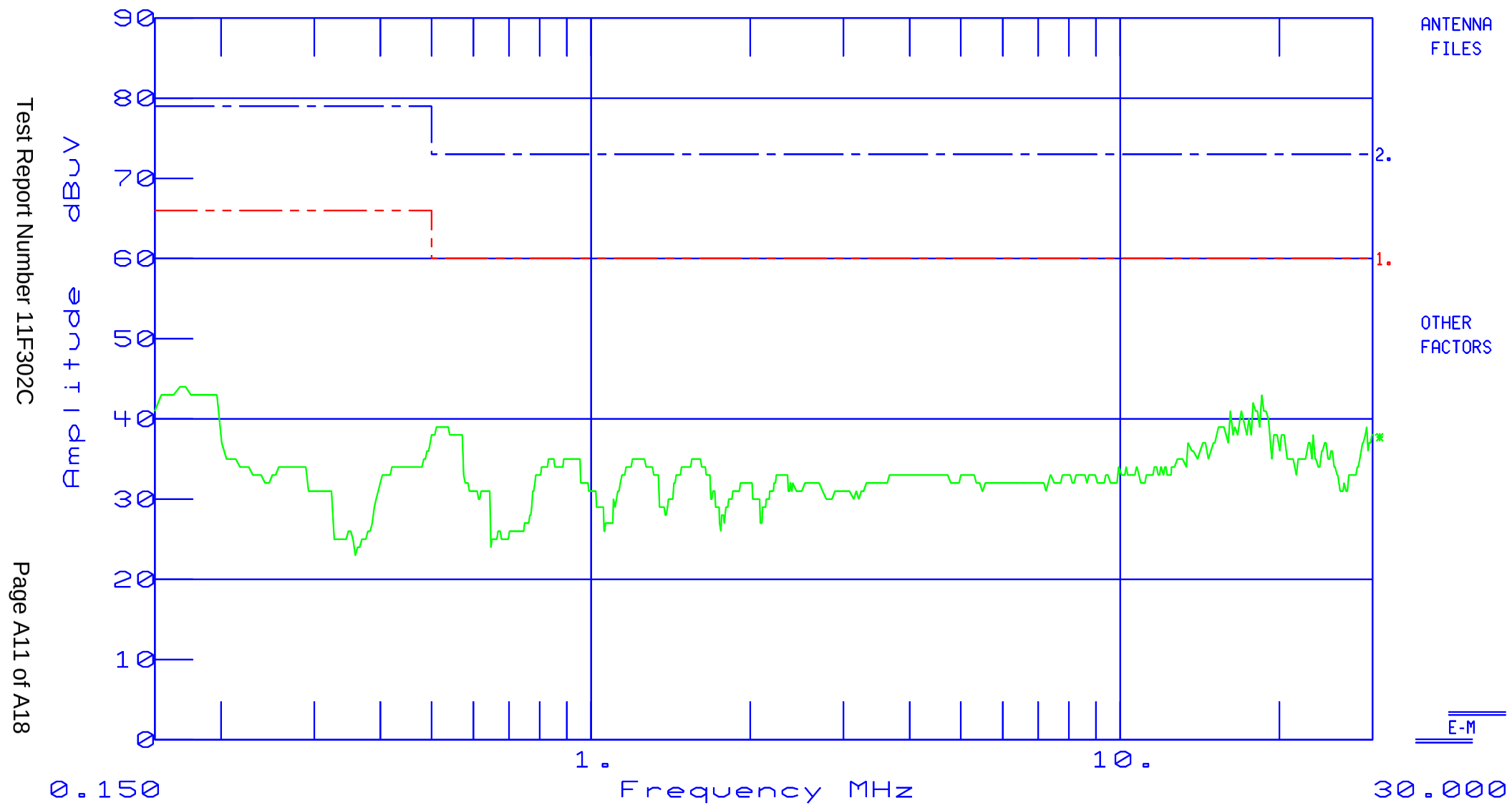
Freq(MHz)	Amp	C22AAVG.S30 vs Spec(dB)	C22AQP.S30 vs Spec(dB)
0.1673	44.0	-22.000 *	
0.1715	44.0	-22.000 *	
0.5170	38.0	-22.000 *	
0.5205	38.0	-22.000 *	
0.5239	38.0	-22.000 *	
0.5273	38.0	-22.000 *	
0.5307	38.0	-22.000 *	
0.5341	38.0	-22.000 *	
0.5375	38.0	-22.000 *	
15.3428	38.0	-22.000 *	
15.4098	38.0	-22.000 *	
15.6782	39.0	-21.000 *	
15.7184	39.0	-21.000 *	
16.1578	43.0	-17.000 *	
16.3456	40.0	-20.000 *	
16.4664	40.0	-20.000 *	
16.8487	39.0	-21.000 *	
17.0158	39.0	-21.000 *	
17.1194	39.0	-21.000 *	
17.6808	39.0	-21.000 *	
17.7878	42.0	-18.000 *	
18.1721	38.0	-22.000 *	
18.3492	38.0	-22.000 *	
18.5063	42.0	-18.000 *	
18.6834	40.0	-20.000 *	
18.8438	40.0	-20.000 *	
19.0176	39.0	-21.000 *	
19.0610	39.0	-21.000 *	
19.6853	38.0	-22.000 *	
19.8060	38.0	-22.000 *	
23.1632	38.0	-22.000 *	

Product Safety Engineering

EQUITRAC PAGECOUNTER WITH HID

Date :	09/09/11	Time :	09:43:49.83	EMC-30 SETTINGS	SPECS
Technician :	CHIP FOERSTNER	Test Equip. :	EMC-30	Detector QuasiPeak	1) CISPR22 AVERAGE
Test Method :	EN55022 CLASS A	Test Number :	1	Bandwidth CISPR	2) CISPR 22 QUASI PEAK
Equipment :	PC COPY	Sensor Loc. :	NEUTRAL	Dump/DwellN/A	3)
Mode of Op. :	NORMAL	Sensor Pol. :		RF Atten. 10 dB	4)
Serial No. :		Ext. Atten. :	0 dB	IF Atten. 10 dB	

Comment : 120 VAC / 60 HZ SINO-AMERICAN POWER SUPPLY MODEL#SA120G-05V



TEST TITLE:EQUITRAC PAGECOUNTER WITH HID
DATA FILE :302_N.D30
Amplitude Units : dBuV Threshold -21 dB

PAGE 1
Freq.(MHz)
0.1500

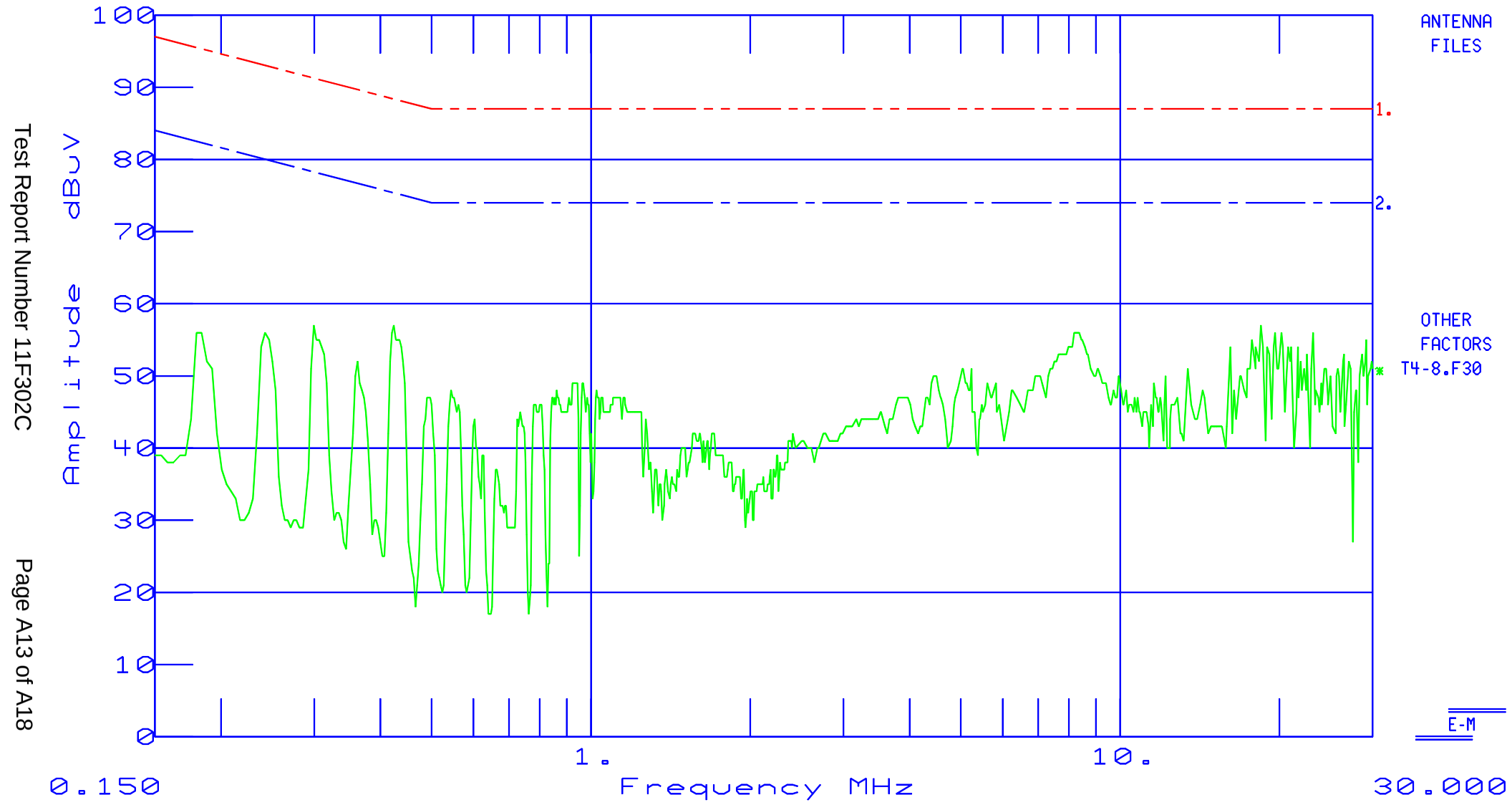
Freq(MHz)	Amp	C22AAVG.S30 vs Spec(dB)	C22AQP.S30 vs Spec(dB)
0.5102	39.0	-21.000 *	
0.5136	39.0	-21.000 *	
0.5170	39.0	-21.000 *	
0.5205	39.0	-21.000 *	
0.5239	39.0	-21.000 *	
0.5273	39.0	-21.000 *	
0.5307	39.0	-21.000 *	
0.5341	39.0	-21.000 *	
0.5375	39.0	-21.000 *	
15.3428	39.0	-21.000 *	
15.5105	39.0	-21.000 *	
15.6782	39.0	-21.000 *	
15.7184	39.0	-21.000 *	
16.1578	41.0	-19.000 *	
16.4664	39.0	-21.000 *	
16.8487	40.0	-20.000 *	
16.9423	41.0	-19.000 *	
17.0827	40.0	-20.000 *	
17.5104	40.0	-20.000 *	
17.8279	42.0	-18.000 *	
18.0150	41.0	-19.000 *	
18.1721	41.0	-19.000 *	
18.3492	39.0	-21.000 *	
18.5163	43.0	-17.000 *	
18.6834	41.0	-19.000 *	
18.8505	41.0	-19.000 *	
18.8605	41.0	-19.000 *	
19.0610	40.0	-20.000 *	
29.2233	39.0	-21.000 *	

Product Safety Engineering

EQUITRAC PAGECOUNTER WITH HID

Date :	09/09/11	Time :	05:41:59.45	EMC-30 SETTINGS	SPECS
Technician :	CHIP FOERSTNER	Test Equip. :	EMC-30	Detector QuasiPeak	1) Default Spec (same as V885)
Test Method :	EN55022 CLASS A	Test Number :	1	Bandwidth CISPR	2) Default Spec (same as V885)
Equipment :	PC COPY	Sensor Loc. :	ETHERNET 1	Dump/DwellN/A	3)
Mode of Op. :	LOOP BACK TRANSMISS	Sensor Pol. :		RF Atten. 10 dB	4)
Serial No. :		Ext. Atten. :	0 dB	IF Atten. 10 dB	

Comment : 230 VAC / 50 HZ



TEST TITLE:EQUITRAC PAGECOUNTER WITH HID
DATA FILE : 302-E1
Amplitude Units : dBuV Threshold -19 dB

PAGE 1
Freq.(MHz)
0.1500

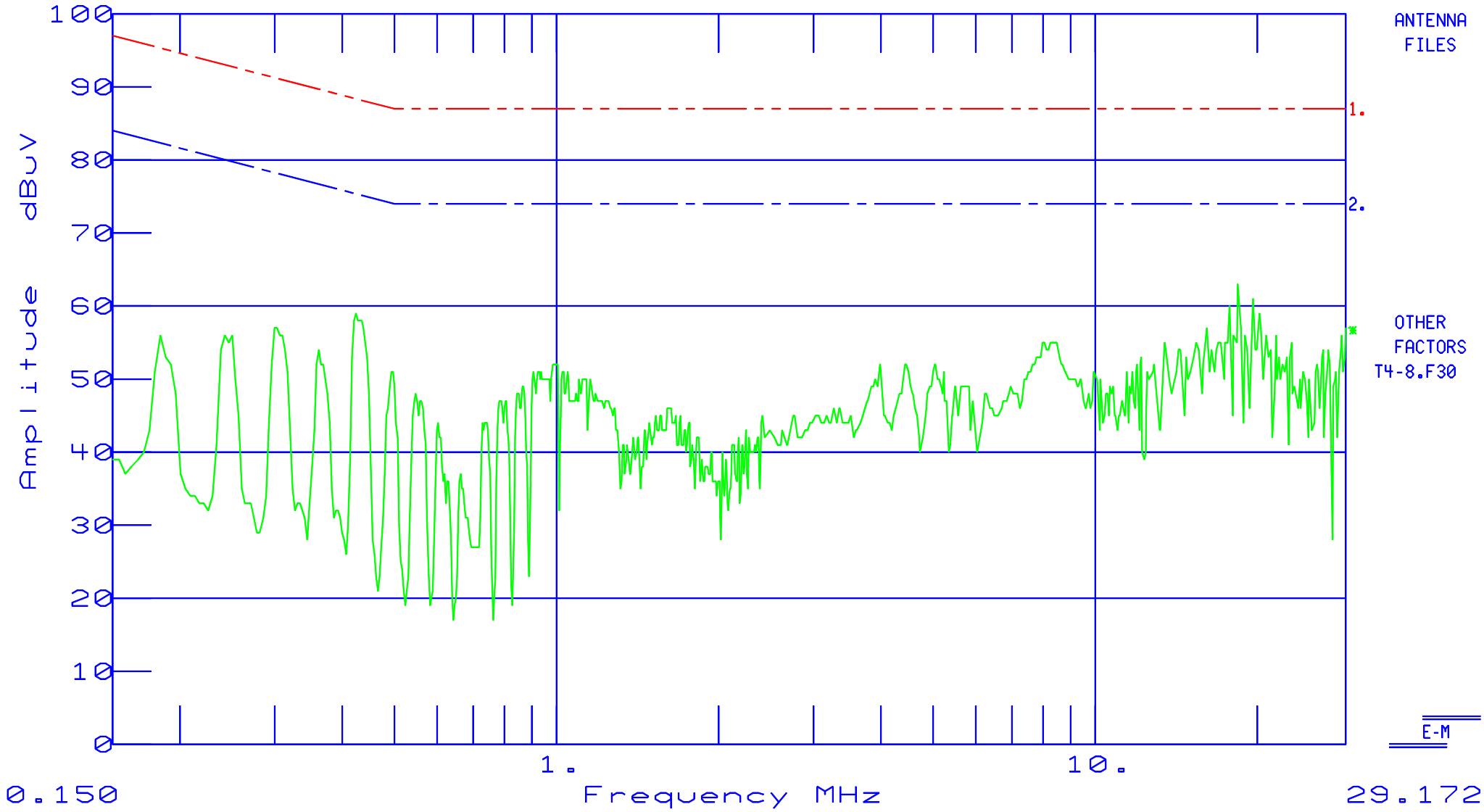
Freq(MHz)	Amp	ETHAQP.S30 vs Spec(dB)	ETHAAVG.S30 vs Spec(dB)
0.4243	57.0		-18.364 *
8.1862	56.0		-18.000 *
8.2535	56.0		-18.000 *
8.3207	56.0		-18.000 *
8.3678	56.0		-18.000 *
8.4553	55.0		-19.000 *
8.4754	55.0		-19.000 *
17.7410	55.0		-19.000 *
18.4361	57.0		-17.000 *
19.6283	56.0		-18.000 *
20.1648	56.0		-18.000 *
23.1632	56.0		-18.000 *
29.1728	55.0		-19.000 *

Product Safety Engineering

EQUITRAC PAGECOUNTER WITH HID

Date :	09/09/11	Time :	05:05:45.60	EMC-30 SETTINGS	SPECS
Technician :	CHIP FOERSTNER	Test Equip. :	EMC-30	Detector QuasiPeak	1) Default Spec (same as V885)
Test Method :	EN55022 CLASS A	Test Number :	1	Bandwidth CISPR	2) Default Spec (same as V885)
Equipment :	PC COPY	Sensor Loc. :	ETHERNET 2	Dump/DwellN/A	3)
Mode of Op. :	LOOP BACK TRANSMISS	Sensor Pol. :		RF Atten. 10 dB	4)
Serial No. :		Ext. Atten. :	0 dB	IF Atten. 10 dB	

Comment : 230 VAC / 50 HZ



TEST TITLE:EQUITRAC PAGECOUNTER WITH HID
DATA FILE : 302_E2
Amplitude Units : dBuV Threshold -18 dB

PAGE 1
Freq.(MHz)
0.1500

Freq(MHz)	Amp	ETHAQP.S30 vs Spec(dB)	ETHAAVG.S30 vs Spec(dB)
0.4208	58.0		-17.432 *
0.4243	59.0		-16.364 *
0.4277	58.0		-17.296 *
0.4312	58.0		-17.229 *
0.4347	58.0		-17.163 *
16.1075	57.0		-17.000 *
17.7477	60.0		-14.000 *
18.0284	56.0		-18.000 *
18.3826	63.0		-11.000 *
18.6199	57.0		-17.000 *
18.9507	56.0		-18.000 *
19.5176	56.0		-18.000 *
19.6316	61.0		-13.000 *
20.1682	59.0		-15.000 *
20.2956	57.0		-17.000 *
20.7551	56.0		-18.000 *
21.6689	56.0		-18.000 *
28.6621	56.0		-18.000 *
29.1728	57.0		-17.000 *

Compliance Checklist (per EN 300 330-2) V1.5.1
Section 4 TECHNICAL REQUIREMENT SPECIFICATIONS

4.2.1.1 Radiated H-field

The radiated H-field, as defined in EN 300 330-1 [2], clause 7.2.1.1, shall not exceed the limits in EN 300 330-1 [2], clause 7.2.1.3, table 4. This requirement applies to transmitters with an integral or dedicated loop antenna. Testing was performed at both normal and extremes. Measurements made at (10) meters.

Frequency Band (kHz)	Limit dBuA/m @ 10 m	Frequency Measured (kHz)	H-Field dBuA/m	Margin (dB)
119 - 135	66.0	125.06	5.0	>20

4.2.1.2 Carrier Current

Not applicable - Product Class 3 only

4.2.1.3 Radiated E-Field

Not applicable - Product Class 4 only

4.2.1.4 Permitted frequency range of modulation bandwidth

The permitted range of the modulation bandwidth shall be within the limits of the assigned frequency band. The EUT complies based on results shown within table of 4.2.1.1. Testing was performed at both normal and extremes.

Frequency Band (kHz)	Voltage	Temperature	Frequency (kHz)	Pass / Fail
119 - 135	207	22c	125.03	Pass
119 - 135	253	22c	125.03	Pass
119 - 135	230	-20c	125.025	Pass
119 - 135	230	+55c	125.16	Pass

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4.2.1.5 Spurious Emissions

4.2.1.5.1 Conducted spurious emissions at frequencies below 30 MHz

Not applicable - Product Class 3 only

4.2.1.5.2 Conducted spurious emissions at frequencies above 30 MHz

Not applicable - Product Class 3 only

4.2.1.5.3 Radiated spurious emissions at frequencies below 30 MHz

The EUT complies based on results shown within table of 4.2.1.1.

4.2.1.5.4 Radiated spurious emissions at frequencies above 30 MHz

No emissions were observed that exceeded the limit shown in table 8 of 300-330-1.

4.2.1.56 Duty Cycle

The device is declared to be a duty cycle class 4.

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Tel (352) 588-2209 Fax (352) 588-2544

APPENDIX

B

System Under Test Description

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

SYSTEM COMPONENTS

****

DEVICE TYPE: EUT, Equitrac PageCounter model# PC COPY with HID Reader
Power supply: Sino-American SA-120G-05V
****

DEVICE TYPE: TrendNET Router model# TW100-BVR204/A (Support Equipment)
Power supply: AC-DC adapter model# MW41-0900700 9VDC output
****

DEVICE TYPE: Fluke 45 Multimeter (Support Equipment)
****

DEVICE TYPE: HID proximity access card to activate HID reader
****

INTERFACE CABLES

****

DEVICE TYPE: EUT
SHIELD: No
LENGTH: 1 Meter Bundle
CONNECTOR TYPE: RJ45 to Trendnet Router (Router Active ON)
PORT: Expansion
****

DEVICE TYPE: EUT
SHIELD: No
LENGTH: 1 Meter Bundle
CONNECTOR TYPE: RJ 45 to Trendnet Router (Router Active ON)
PORT: Ethernet
****

DEVICE TYPE: EUT
SHIELD: Yes
LENGTH: 1 Meter Bundled
CONNECTOR TYPE: 9 pin Dsub to same at Fluke 45 Multimeter (Meter powered OFF)
PORT: Serial port
****

DEVICE TYPE: EUT
SHIELD: Yes
LENGTH: 1 Meter Bundled
CONNECTOR TYPE: 26 pin Dsub to Resistive 1kOhm Load as terminator
PORT: Copy control
****

AC LINE CORDS

****

DEVICE TYPE: EUT PS
SHIELD: No
LENGTH: 6 feet
CONNECTOR TYPE: IEC to dedicated

****

DEVICE TYPE: EUT PS (DC side)
SHIELD: No
LENGTH: 5 feet
CONNECTOR TYPE: dedicated 4 pin DIN, ferrite at PS end

****

APPENDIX

C

Measurement Protocol

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

ANSCI C63.4 2003 was the guiding document for test procedures as required by 47 CFR Part 15 Subpart A Section 15.31(a)(3).

The EUT was powered with (230) VAC during the collection of data included within.

The data is compared to the CISPR-22 Class A limits.

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

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

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

Observed Level		**54.6**	dBµV	
ACF	+	**15.4**	dB/M	
Cable Loss	+	**1.8**	dB	
Preamp Gain	–	**26.0**	dB	
Actual Level		**45.8**	dBµV/M	@ 295 MHz

Please have a company official review this report and sign.

_____