NVLAP
Accredited Since 1993

QUALIFICATION TEST REPORT

CRITERION TECHNOLOGY

[X] EMISSIONS -FCC Part 15

FUJITSU COMPUTER PRODUCTS OF AMERICA, INC.

Test Report Number: RSS 9809 2801
Model No: PRO1

Date of Issue: 23 October 1998
Date of Test Article Receipt: 28 September 1998

Type of product: Intentional Radiator

Manufacturer: Remote Sensing Systems, Inc.

Address: 15285 Rockview Drive, Colorado Springs, CO 80921

Test Results: [X] Complies [ ] Does Not Comply

Barry Waller Lab Director (NVLAP Signatory)

Michael E. Mussler Compliance Engineer

Accredited by NIST NVLAP for FCC Part 15

Testing Center
P.O. Box 387
1350 County Road 16
Rollinsville, CO 80474
(303) 682-6600
fax (303) 682-6672

Business Office
2402 Clover Basin Drive
Longmont, CO 80503
(303) 682-6485
fax (303) 682-6401
www.criteriontech.com

Disclaimers:

This report is the confidential property of the client. For the protection of our clients and ourselves, extracts from this test report cannot be produced without prior written approval from Criterion Technology. Reproduction of the complete report can be performed at the client's discretion.

The client is aware that Criterion Technology has performed testing in accordance with the applicable standard(s). Test data is accurate within ANSI uncertainty parameters for Emissions testing, unless a specific level of accuracy has been defined in writing prior to testing, by Criterion Technology and the client.

Criterion Technology reports apply only to the specific Equipment Under Test (EUT) sample(s) tested under the test conditions described in this report. If the manufacturer intends to use this report as a document demonstrating compliance of this model, additional models of this product must have electrical and mechanical characteristics identical to the device tested for this report. Criterion Technology shall have no liability for any deductions, inferences, or generalizations drawn by the client or others from Criterion Technology issued reports.

Total liability is limited to the amount invoiced for the testing of this EUT and the contents of this report are not warranted.

Compliance with the appropriate governmental standards is the responsibility of the manufacturer.
Any questions regarding this report should be directed to:

Laboratory Director
Criterion Technology
P.O. Box 387
1350 County Road 16
Rollinsville, Colorado 80474
Phone: 1-303-682-6600
Fax:1-303-682-6672
email: Laboratory_Director@criteriontech.com

NVLAP Notes:

The **NVLAP Logo** on the front cover of this report applies only to the **47 CFR part 15 and CISPR 22:1993** data contained herein.

This report contains data which are not covered by the NVLAP accreditation.

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

Criterion Technology has been accredited by the following groups: NVLAP, VCCI, BCIQ and NMi (EU Competent Body Accreditation)

All Criterion Technology instrumentation and accessories used to test products for compliance to the indicated standards are calibrated regularly in accordance with ISO 9001, ISO Guide 25, ANSI/NCSL Z450-I-1994 and are traceable to national standards.

NVLAP
Accredited Since 1993

QUALIFICATION TEST REPORT

[X] EMISSIONS -FCC Part 15

Test Report Number: RSS 9809 2801
Model No: PRO1

Date of Issue: 23 October 1998
Date of Test Article Receipt: 28 September 1998

Type of product: Intentional Radiator

Manufacturer: Remote Sensing Systems, Inc.

Address: 15285 Rockview Drive, Colorado Springs, CO 80921

Test Results: [X] Complies [ ] Does Not Comply

Barry Wallen — Lab Director (NVLAP Signatory)

Michael E. Mussler — Compliance Engineer

Accredited by NIST NVLAP for FCC Part 15

Disclaimers:

This report is the confidential property of the client. For the protection of our clients and ourselves, extracts from this test report cannot be produced without prior written approval from Criterion Technology. Reproduction of the complete report can be performed at the client's discretion.

The client is aware that Criterion Technology has performed testing in accordance with the applicable standard(s). Test data is accurate within ANSI uncertainty parameters for Emissions testing, unless a specific level of accuracy has been defined in writing prior to testing, by Criterion Technology and the client.

Criterion Technology reports apply only to the specific Equipment Under Test (EUT) sample(s) tested under the test conditions described in this report. If the manufacturer intends to use this report as a document demonstrating compliance of this model, additional models of this product must have electrical and mechanical characteristics identical to the device tested for this report. Criterion Technology shall have no liability for any deductions, inferences, or generalizations drawn by the client or others from Criterion Technology issued reports.

Total liability is limited to the amount invoiced for the testing of this EUT and the contents of this report are not warranted.

Compliance with the appropriate governmental standards is the responsibility of the manufacturer.
Any questions regarding this report should be directed to:

Laboratory Director
Criterion Technology
P.O. Box 387
1350 County Road 16
Rollinsville, Colorado 80474
Phone: 1-303-682-6600
Fax:1-303-682-6672
email: Laboratory_Director@criteriontech.com

NVLAP Notes:

The **NVLAP Logo** on the front cover of this report applies only to the **47 CFR part 15 and CISPR 22:1993** data contained herein.

This report contains data which are not covered by the NVLAP accreditation.

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

Criterion Technology has been accredited by the following groups: NVLAP, VCCI, BCIQ and NMi (EU Competent Body Accreditation)

All Criterion Technology instrumentation and accessories used to test products for compliance to the indicated standards are calibrated regularly in accordance with ISO 9001, ISO Guide 25, ANSI/NCSL Z450-I-1994 and are traceable to national standards.

Table Of Contents

Section 1 Executive Summary

The test article was in compliance with all the test standards listed below.

FCC Part 15 Subpart A	**General**
FCC Part 15 Subpart B	**Conducted & Radiated Emissions**
FCC Part 15 Subpart C	**Intentional Radiators**

All test methods were performed in accordance with the standards listed above.

Section 2 Emissions Test Standards

The emissions tests were performed according to following standards:
FCC Part 15, Subpart B [ ] Class A [X] Class B
FCC Part 15, Subpart C, Paragraph 15.209 & 249

Part 2.1 FCC Part 15 Subpart B - Conducted Emissions

Measurement of *conducted emissions* was not performed as the EUT was battery operated.

Part 2.2 FCC Part 15 Subpart B –Radiated Emissions

Measurement or *radiated emissions (electric* field) in the frequency range of 30 MHz-1000 MHz were tested in a horizontal and vertical polarization as indicated below:

Environmental conditions in the lab:

Date(s) of Test:	mm/dd/yy	9/29/98 through 10/17/98
Temperature:	77°F	
Rel. Humidity	28%	
Test Voltage	none (Battery operation)	

Test location:
[X] Criterion Technology Open Area Test Site
[X] Pre-Scan In Semi-Anechoic Chamber
[ ] Not applicable

Test distance (antenna - EUT):

[ ]	1 meter	[ ]Preliminary Measurement	[ ]Final Measurement
[X]	3 meters	[X]Preliminary Measurement	[X]Final Measurement
[ ]	10 meters	[ ]Preliminary Measurement	[ ]Final Measurement
[ ]	30 meters	[ ]Preliminary Measurement	[ ]Final Measurement
[ ]	Not applicable		

Test instruments:

		Calibration Due Date
[X]	Hewlett Packard Spectrum Analyzer, Model 8566B	12/17/98
[ ]	Hewlett Packard Quasi Peak Adapter, Model 85650A	12/17/98
[ ]	Hewlett Packard Tracking Generator, Model 85645A	12/17/98
[ ]	Rohde and Schwarz Receiver, Model, ESHS-30	8/26/99
[X]	Rohde and Schwarz Model Receiver, ESVS-30	9/1//99
[X]	Chase, BiLog Antenna, Model 1121	5/30/99
[X]	Antenna Research, Model 1181A (sn: 1056)	4/15/99
[X]	Amp3 and High Freq cbl set	9/30/99
[X]	Mini Circuits Pre-Amp, Amp 2	6/2/99
[X]	EMCO Loop Antenna, Model 6502	10/7/99

Test accessories:
[ ] Other
[X] Not applicable

Results

Radiated Emissions (Electric Field) 30 MHz - 10000 MHz (exclusive of the fundamental and harmonics)

The requirements are [X] PASS [ ] FAIL [ ] N/A

Min. limit margin 0.52 dB at 932.0580 MHz

Max. limit exceeding dB at MHz

Remarks:

1.) Reference Appendix B for Data Sheets

2.) The lowest internal clock/oscillator frequency used in the device is 500 kHz. A pre-scan was done in the Semi-Anechoic Chamber to identify emissions from 150 kHz to 30 MHz. None were encountered.

3.) The fundamental frequency of the intentional radiator is 903.8121 MHz. Emissions were examined to the tenth harmonic of the fundamental with the only emissions of note being the 2nd and 3rd harmonics.

Part 2.3 FCC Part 15 Subpart C –Intentional Radiated Fields

Measurement or *radiated emissions (electric* field) in the frequency range of 900 MHz-10000 MHz were tested in a horizontal and vertical polarization as indicated below:

Environmental conditions in the lab:

Date(s) of Test:	mm/dd/yy	9/28/98 through 10/17/98
Temperature:	77°F	
Rel. Humidity	28%	
Test Voltage	none (Battery operation)	

Test location:

[ ] Criterion Technology Open Area Test Site
[ ] Pre-Scan In Semi-Anechoic Chamber
[ ] Not applicable

Test distance (antenna - EUT):

[ ]	1 meter	[ ]Preliminary Measurement	[ ]Final Measurement
[X]	3 meters	[X]Preliminary Measurement	[X]Final Measurement
[ ]	10 meters	[ ]Preliminary Measurement	[ ]Final Measurement
[ ]	30 meters	[ ]Preliminary Measurement	[ ]Final Measurement
[ ]	Not applicable		

Test instruments:

		Calibration Due Date
[X]	Hewlett Packard Spectrum Analyzer, Model 8566B	12/17/98
[ ]	Hewlett Packard Quasi Peak Adapter, Model 85650A	12/17/98
[ ]	Hewlett Packard Tracking Generator, Model 85645A	12/17/98
[ ]	Rohde and Schwarz Receiver, Model, ESHS-30	8/26/99
[X]	Rohde and Schwarz Model Receiver, ESVS-30	9/1//99
[X]	Chase, BiLog Antenna, Model 1121	5/30/99
[X]	Antenna Research, Model 1181A (sn: 1056)	4/15/99
[X]	Amp3 and High Freq cbl set	9/30/99
[X]	Mini Circuits Pre-Amp, Amp 2	6/2/99
[ ]	EMCO Loop Antenna, Model 6502	10/7/99

Test accessories:

[ ] Other
[ ] Not applicable

Results

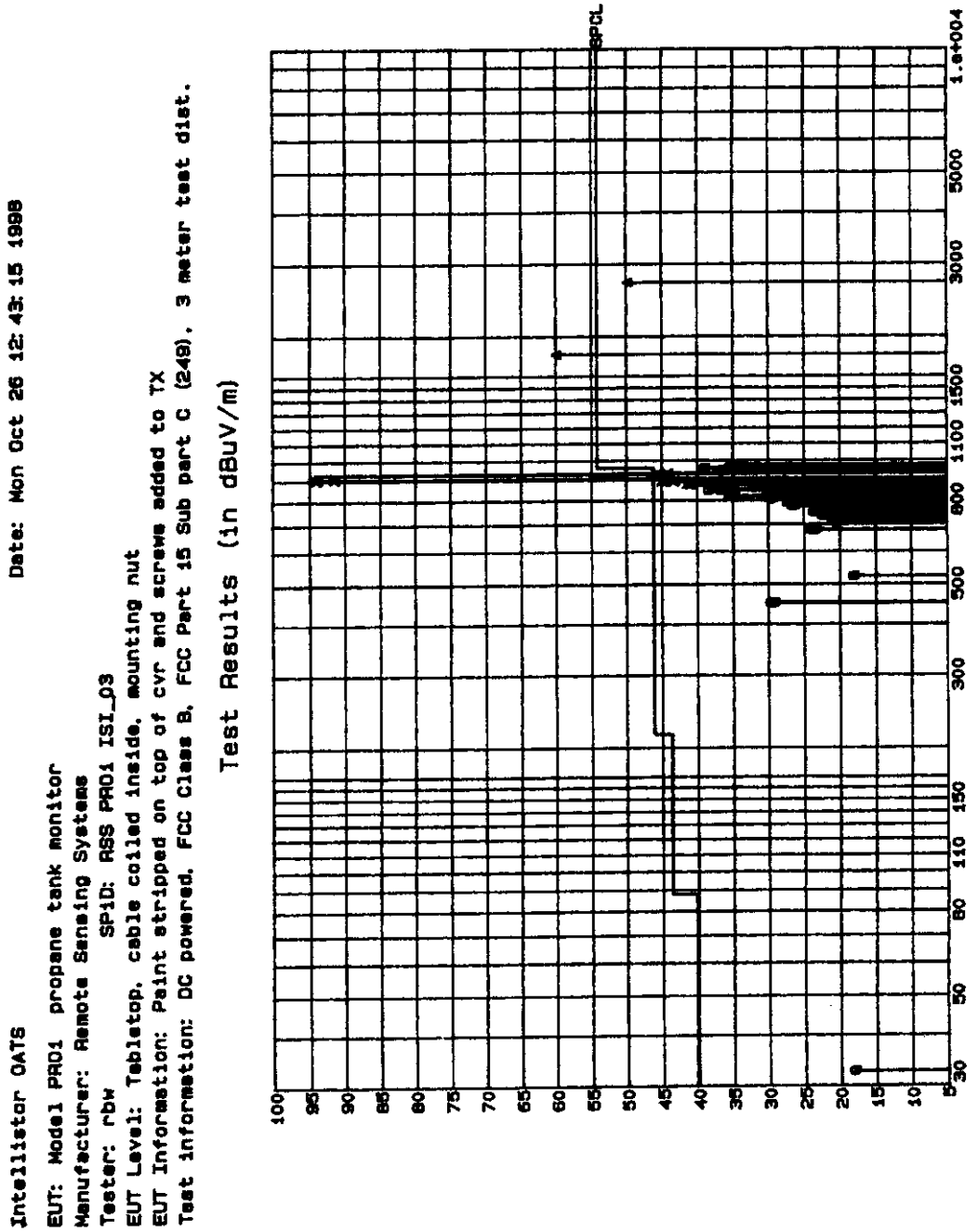
Radiated Emissions (Electric Field) 30 MHz - 10,000 MHz

The requirements are 15.209 & 249	[X] PASS	[ ] FAIL	[ ] N/A
Min. limit margin - Fundamental	0.15 dB	at	903.8121 MHz
Min. limit margin - 2nd Harmonic	2.48 dB	at	1808.0288 MHz
Min. limit margin - 3rd Harmonic	12.58dB	at	2711.7480 MHz
Max. limit exceeding	dB	at	MHz

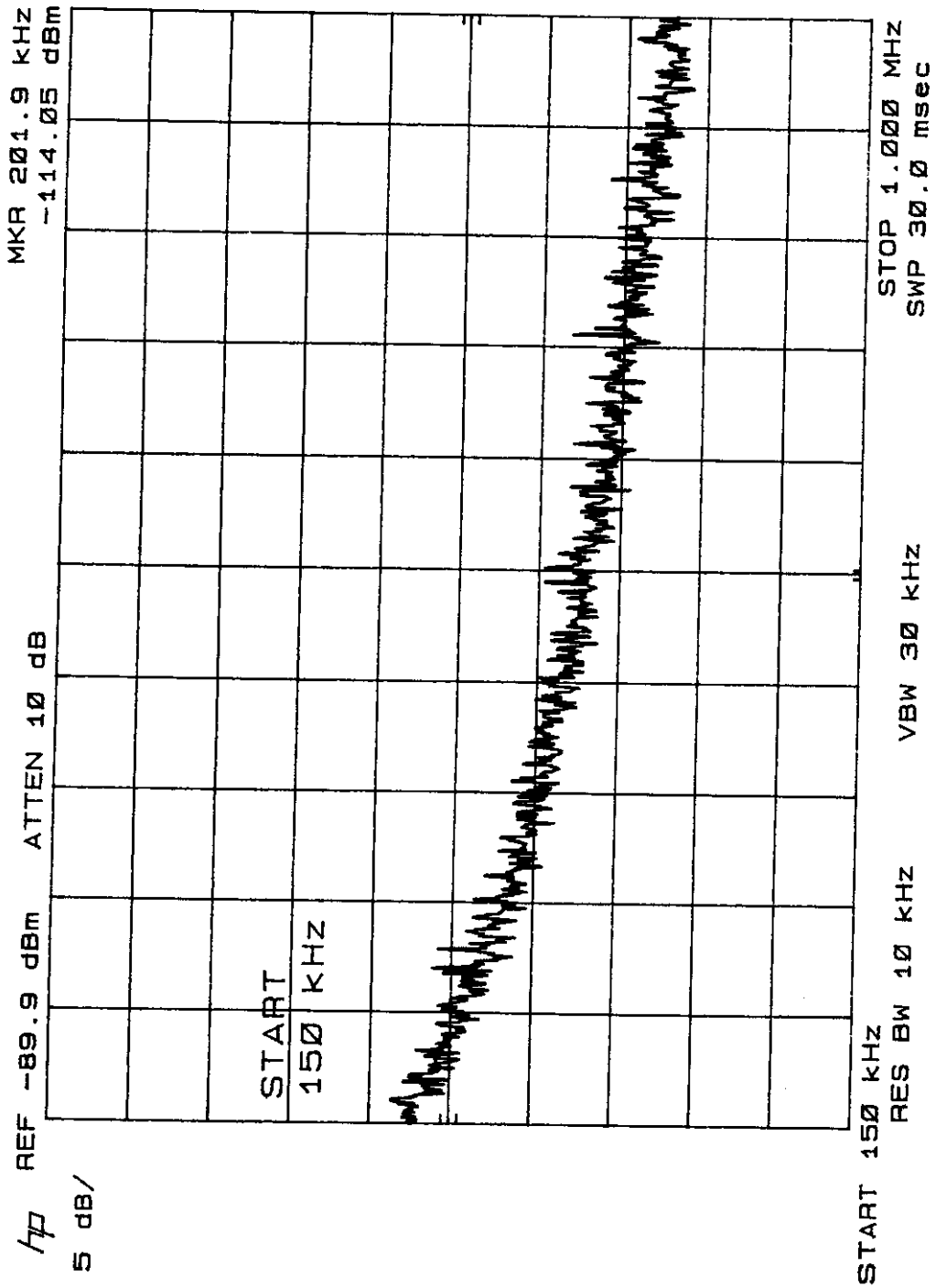
Remarks: Reference Appendix B for Data Sheets

Section 4 ORIGINAL TEST DATA / PLOTS

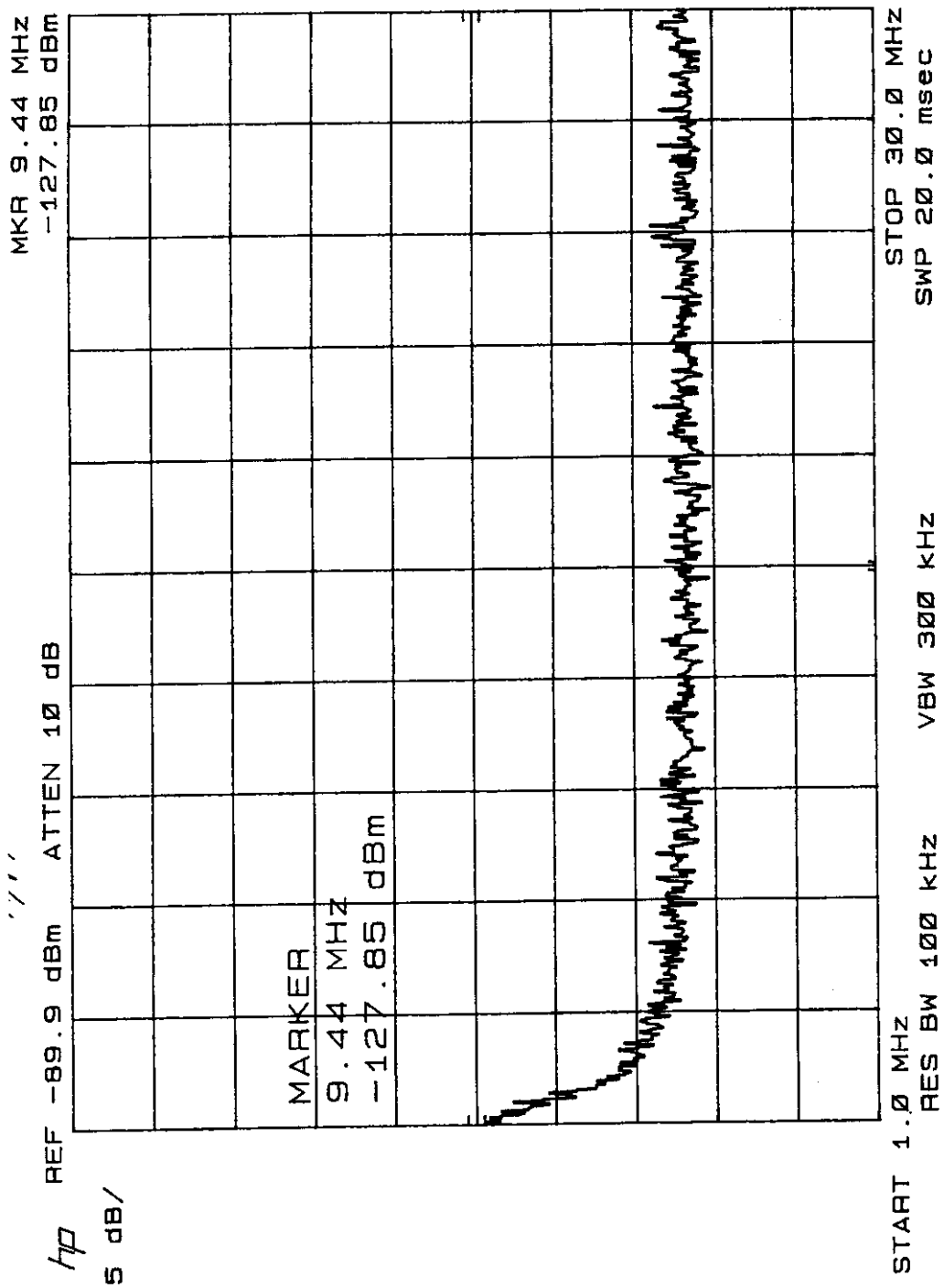
Part 4.1 Radiated Emissions - 30 MHz to 10 GHz Plot



Part 4.2 Radiated Emissions - Prescan Plot, 150 KHz to 1 MHz



Part 4.3 Radiated Emissions - Prescan Plot, 1 MHz to 30 MHz



Part 4.4 EUT Description and Scan Lists

Intellistor OATS
EUT: Model PRO1 propane tank monitor
Manufacturer: Remote Sensing Systems
Tester: rbw
EUT Level: Tabletop, cable coiled inside, mounting nut
EUT Information: Paint stripped on top of cvr and screws added to TX
Test information: DC powered, FCC Class B, FCC Part 15 Sub part C (249), 3 meter test dist.

Mon Oct 26 12:43:35 1998

Special ID: RSS PRO1 ISI_03

Table 1: Scan List, sorted by margin to limit SPCL, -30.0dB filter

Freq, MHz	Value	Sts	SPCL	TT	Hght	Az	Comment
1807.6790	59.75	p	5.75	287	100	V	2fo
903.8121	93.85	m	-0.15	66	99	V	Left peak of fundamental
904.0080	93.66	m	-0.34	66	99	V	right half of Fundamental
932.0580	45.48	m	-0.52	104	99	V	.
889.8874	44.78	m	-1.22	46	99	V	14.12 ck
932.2660	44.00	m	-2.00	104	99	V	.
903.8976	91.19	m	-2.81	66	99	V	Middle of Fundamental
889.6947	43.14	m	-2.86	104	99	V	.
2711.4410	49.65	p	-4.35	279	100	V	3fo
875.7663	41.18	m	-4.82	196	99	V	.
875.5717	40.72	m	-5.28	196	99	V	.
847.3250	38.26	q	-7.74	171	106	V	.
946.1800	36.78	q	-9.22	180	99	V	.
847.5100	36.58	q	-9.42	171	106	V	.
946.3930	36.29	q	-9.71	171	106	V	.
819.2710	35.34	q	-10.66	171	106	V	.
819.0840	34.74	q	-11.26	171	106	V	.
861.6360	31.52	q	-14.48	171	106	V	.
960.3040	38.86	q	-15.14	180	99	V	.
861.4560	30.75	q	-15.25	171	106	V	.
833.2010	30.21	m	-15.79	180	99	V	.
833.3870	29.66	m	-16.34	180	99	V	.
452.2930	29.62	q	-16.38	171	106	V	14.123 MHz Clk
804.9590	29.49	q	-16.51	171	106	V	.
451.9090	29.44	q	-16.56	171	106	V	.
452.0050	29.00	q	-17.00	171	106	V	.
960.5180	35.38	q	-18.62	180	99	V	.
790.8400	27.17	q	-18.83	171	106	V	.
974.4270	35.12	q	-18.88	180	99	V	.

Table 1: Scan List, sorted by margin to limit SPCL, -30.0dB filter

Freq, MHz	Value	Sts	SPCL	TT	Hght	Az	Comment
776.7160	26.56	q	-19.44	171	106	V	.
791.0090	26.30	q	-19.70	171	106	V	.
776.8860	26.11	q	-19.89	171	106	V	.
805.1320	25.82	q	-20.18	171	106	V	.
974.6390	33.58	q	-20.42	180	99	V	.
32.5805	18.03	q	-21.97	180	99	V	.
677.8590	23.96	q	-22.04	171	106	V	.
748.4770	23.56	q	-22.44	171	106	V	14.123 MHz Clk
678.0110	23.26	q	-22.74	171	106	V	.
748.6380	23.13	q	-22.87	171	106	V	.
734.3490	22.30	q	-23.70	171	106	V	14.123 MHz Clk
734.5080	22.03	q	-23.97	171	106	V	14.123 MHz Clk
762.7610	21.65	q	-24.35	171	106	V	.
762.5950	21.55	q	-24.45	171	106	V	.
720.2310	21.00	q	-25.00	171	106	V	14.123 MHz Clk
706.1680	20.34	q	-25.66	180	99	V	14.12 ck
522.8170	18.01	q	-27.99	180	99	V	.

Table 2: Scan List for SPCL, sorted by Frequency, -30.0dB filter

Freq, MHz	Value	Sts	SPCL	TT	Hght	Az	Comment
32.5805	18.03	q	-21.97	180	99	V	.
451.9090	29.44	q	-16.56	171	106	V	.
452.0050	29.00	q	-17.00	171	106	V	.
452.2930	29.62	q	-16.38	171	106	V	14.123 MHz Clk
522.8170	18.01	q	-27.99	180	99	V	.
677.8590	23.96	q	-22.04	171	106	V	.
678.0110	23.26	q	-22.74	171	106	V	.
706.1680	20.34	q	-25.66	180	99	V	14.12 ck
720.2310	21.00	q	-25.00	171	106	V	14.123 MHz Clk
734.3490	22.30	q	-23.70	171	106	V	14.123 MHz Clk
734.5080	22.03	q	-23.97	171	106	V	14.123 MHz Clk
748.4770	23.56	q	-22.44	171	106	V	14.123 MHz Clk
748.6380	23.13	q	-22.87	171	106	V	.
762.5950	21.55	q	-24.45	171	106	V	.
762.7610	21.65	q	-24.35	171	106	V	.
776.7160	26.56	q	-19.44	171	106	V	.
776.8860	26.11	q	-19.89	171	106	V	.

Table 2: Scan List for SPCL, sorted by Frequency, -30.0dB filter

Freq, MHz	Value	Sts	SPCL	TT	Hght	Az	Comment
790.8400	27.17	q	-18.83	171	106	V	.
791.0090	26.30	q	-19.70	171	106	V	.
804.9590	29.49	q	-16.51	171	106	V	.
805.1320	25.82	q	-20.18	171	106	V	.
819.0840	34.74	q	-11.26	171	106	V	.
819.2710	35.34	q	-10.66	171	106	V	.
833.2010	30.21	m	-15.79	180	99	V	.
833.3870	29.66	m	-16.34	180	99	V	.
847.3250	38.26	q	-7.74	171	106	V	.
847.5100	36.58	q	-9.42	171	106	V	.
861.4560	30.75	q	-15.25	171	106	V	.
861.6360	31.52	q	-14.48	171	106	V	.
875.5717	40.72	m	-5.28	196	99	V	.
875.7663	41.18	m	-4.82	196	99	V	.
889.6947	43.14	m	-2.86	104	99	V	.
889.8874	44.78	m	-1.22	46	99	V	14.12 ck
903.8121	93.85	m	-0.15	66	99	V	Left peak of fundamental
903.8976	91.19	m	-2.81	66	99	V	Middle of Fundamental
904.0080	93.66	m	-0.34	66	99	V	right half of Fundamental
932.0580	45.48	m	-0.52	104	99	V	.
932.2660	44.00	m	-2.00	104	99	V	.
946.1800	36.78	q	-9.22	180	99	V	.
946.3930	36.29	q	-9.71	171	106	V	.
960.3040	38.86	q	-15.14	180	99	V	.
960.5180	35.38	q	-18.62	180	99	V	.
974.4270	35.12	q	-18.88	180	99	V	.
974.6390	33.58	q	-20.42	180	99	V	.
1807.6790	59.75	p	5.75	287	100	V	2fo
2711.4410	49.65	p	-4.35	279	100	V	3fo

Table 3: Complete Scan List Sorted by Frequency

Freq, MHz	I-val	Final	Sts	TT	Hght	Az	Time	Comment
32.5805	23.90	18.03	q	180	99	V	Mon Sep 28 16:08:55 1998	.
127.0760	23.63	12.78	q	180	99	V	Mon Sep 28 16:09:51 1998	.
268.2471	22.37	13.02	q	196	99	V	Tue Sep 29 09:57:18 1998	.
451.9090	33.60	29.44	q	171	106	V	Mon Sep 28 12:24:14 1998	.
452.0050	33.16	29.00	q	171	106	V	Mon Sep 28 12:25:24 1998	.
452.2930	33.76	29.62	q	171	106	V	Mon Sep 28 12:27:14 1998	14.123 MHz Clk
522.8170	20.86	18.01	q	180	99	V	Tue Sep 29 08:33:09 1998	.

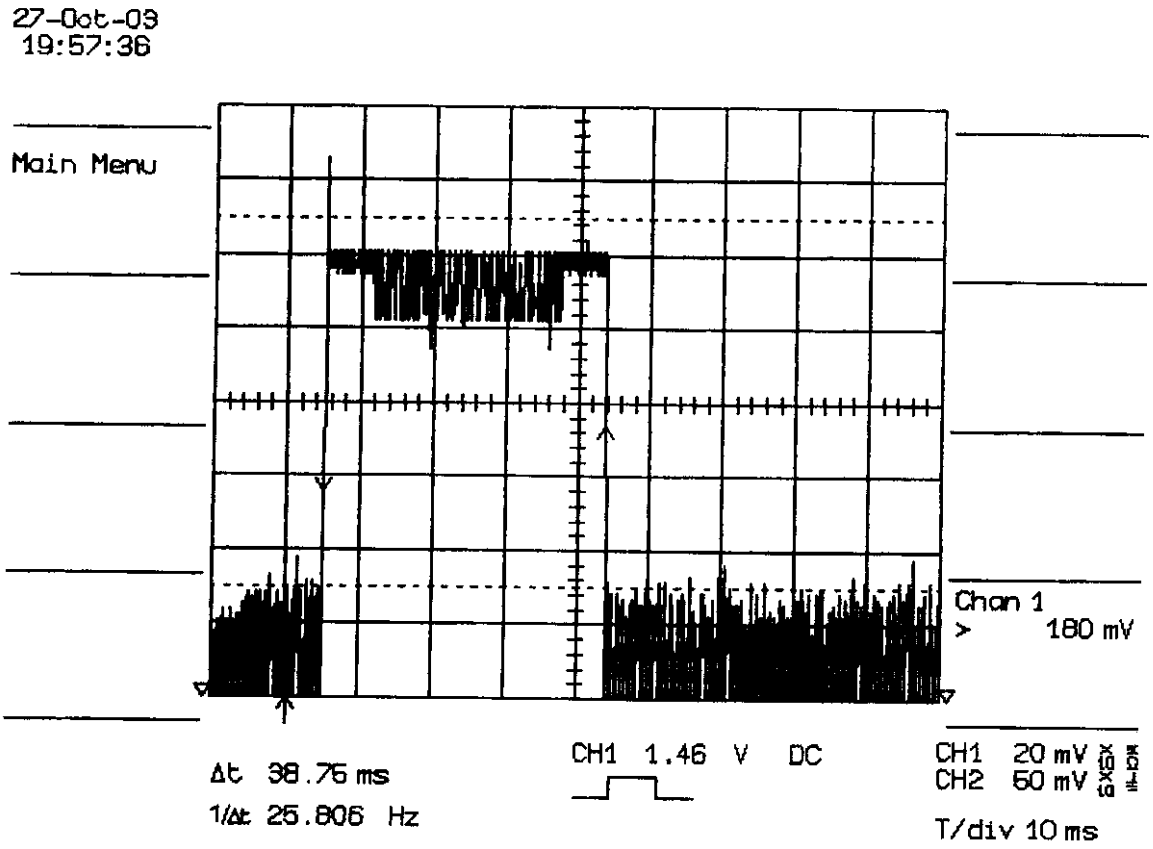
Table 3: Complete Scan List Sorted by Frequency

Freq, MHz	I-val	Final	Sts	TT	Hght	Az	Time	Comment
677.8590	23.89	23.96	q	171	106	V	Mon Sep 28 13:15:37 1998	·
678.0110	23.19	23.26	q	171	106	V	Mon Sep 28 13:16:35 1998	·
706.1680	20.07	20.34	q	180	99	V	Mon Sep 28 16:12:58 1998	14.12 ck
720.2310	20.54	21.00	q	171	106	V	Mon Sep 28 13:20:39 1998	14.123 MHz Clk
734.3490	21.66	22.30	q	171	106	V	Mon Sep 28 13:21:27 1998	14.123 MHz Clk
734.5080	21.40	22.03	q	171	106	V	Mon Sep 28 13:23:31 1998	14.123 MHz Clk
748.4770	23.03	23.56	q	171	106	V	Mon Sep 28 13:26:56 1998	14.123 MHz Clk
748.6380	22.59	23.13	q	171	106	V	Mon Sep 28 13:26:21 1998	·
762.5950	20.64	21.55	q	171	106	V	Mon Sep 28 13:28:15 1998	·
762.7610	20.73	21.65	q	171	106	V	Mon Sep 28 13:29:05 1998	·
776.7160	25.33	26.56	q	171	106	V	Mon Sep 28 13:29:38 1998	·
776.8860	24.88	26.11	q	171	106	V	Mon Sep 28 13:30:01 1998	·
790.8400	25.95	27.17	q	171	106	V	Mon Sep 28 13:30:30 1998	·
791.0090	25.08	26.30	q	171	106	V	Mon Sep 28 13:30:45 1998	·
804.9590	28.07	29.49	q	171	106	V	Mon Sep 28 13:31:30 1998	·
805.1320	24.39	25.82	q	171	106	V	Mon Sep 28 13:31:52 1998	·
819.0840	32.58	34.74	q	171	106	V	Mon Sep 28 13:32:33 1998	·
819.2710	33.18	35.34	q	171	106	V	Mon Sep 28 13:33:21 1998	·
833.2010	27.92	30.21	m	180	99	V	Tue Sep 29 09:12:42 1998	·
833.3870	27.38	29.66	m	180	99	V	Tue Sep 29 09:16:56 1998	·
847.3250	36.22	38.26	q	171	106	V	Mon Sep 28 13:36:16 1998	·
847.5100	34.54	36.58	q	171	106	V	Mon Sep 28 13:35:11 1998	·
861.4560	28.99	30.75	q	171	106	V	Mon Sep 28 13:38:49 1998	·
861.6360	29.76	31.52	q	171	106	V	Mon Sep 28 13:37:20 1998	·
875.5717	39.13	40.72	m	196	99	V	Tue Sep 29 09:55:01 1998	·
875.7663	39.59	41.18	m	196	99	V	Tue Sep 29 09:53:52 1998	·
889.6947	41.89	43.14	m	104	99	V	Sat Oct 03 13:40:16 1998	·
889.8874	43.53	44.78	m	46	99	V	Sat Oct 03 13:54:08 1998	14.12 ck
903.8121	92.55	93.85	m	66	99	V	Sat Oct 03 13:22:29 1998	Left peak of fundamental
903.8976	89.89	91.19	m	66	99	V	Sat Oct 03 13:25:34 1998	Middle of Fundamental
904.0080	92.35	93.66	m	66	99	V	Sat Oct 03 13:24:17 1998	right half of Fundamental
917.6380	21.74	23.62	q	180	99	V	Tue Sep 29 08:56:11 1998	·
917.9376	43.68	45.56	m	345	99	V	Sat Oct 03 13:49:14 1998	·
918.1344	41.12	43.00	m	174	99	V	Sat Oct 03 13:43:57 1998	·
932.0580	43.28	45.48	m	104	99	V	Sat Oct 03 13:32:43 1998	·
932.2660	41.80	44.00	m	104	99	V	Sat Oct 03 13:34:15 1998	·
946.1800	33.91	36.78	q	180	99	V	Tue Sep 29 08:57:59 1998	·
946.3930	33.41	36.29	q	171	106	V	Mon Sep 28 13:45:29 1998	·
960.3040	35.39	38.86	q	180	99	V	Tue Sep 29 08:58:44 1998	·
960.5180	31.91	35.38	q	180	99	V	Tue Sep 29 08:59:26 1998	·
974.4270	31.51	35.12	q	180	99	V	Tue Sep 29 09:00:01 1998	·
974.6390	29.97	33.58	q	180	99	V	Tue Sep 29 09:00:28 1998	·
1807.6790	52.35	59.75	p	287	100	V	Sat Oct 17 13:21:48 1998	2fo
2711.4410	36.85	49.65	p	279	100	V	Sat Oct 17 13:21:48 1998	3fo

Part 4.5 Pulse Characteristics of the Pro1 Unit

The following plot was taken in the pre-scan chamber at the spectrum analyzer video detector.

4.5.1 EUT Pulse Timing Plot



4.5.2 Average Level Calculation

The average level was calculated from the measured peak level per the instructions in ANSI C63.4-1992, Appendix I4:

Test Number: RSS 9809_2801

PRO1
Pulse Timing

Pulse No.	(milli sec.)
t1	38.750
t2	0.000
t3	0.000
t4	0.000
t5	0.000
t6	0.000
t7	0.000
t8	0.000
t9	0.000
t10	0.000
t11	0.000
t12	0.000
t13	0.000
P total	38.750

Pulse Train Duration (milli sec.) =
38.76

Pulse Train Duration (Pd) < 100 mSec

Duty Cycle (%) = P total / Pd x 100
38.76

Correction Factor (dB) = 20 log (Duty Cycle)
-8.23

Note that the blanking intervals did not take the pulses to 0. Therefore the entire pulse train duration was used for the duty cycle calculation over the 100 millisecond interval.

The measured peak level was 59.75 dBuV/m at 1807.679 MHz which is 14.25 dB below the peak limit. Applying the correction factor of 8.23 dB gives a calculated average level of 51.52 dBuV/m which is 2.48 dB below the average specification limit.

Section 5 Product Information

Part 5.1 EUT Description and Block Diagram

The client will provide this information.

Part 5.2 EUT Block Diagram

The client will provide the block diagram of the PRO1.

Part 5.3 EUT Diagram as Tested

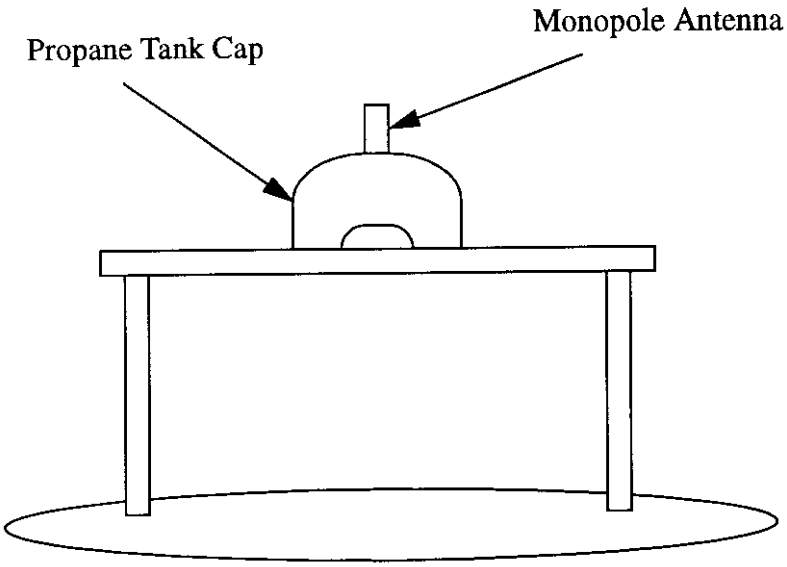


Figure 1. - Mark and Drill Holes in the Tank Cover

1. Locate the apex of the cover. Be careful so the antenna boot will not look canted after installation. Drill a 3/8" hole and remove burrs from both sides of the cover.

Figure 2. - Mark and Drill Holes for the Solar Cell

2. Review for the optimum location for the solar cell. Locate a vertical surface in which all four edges of the solar boot will seal against the tank cover surface.Preferrably southern exposure. Using the magnet line with the magnet located at the cover apex mark the centerline of the solar boot. Using the solar cell template drill two 17/64" holes and deburr both sides.

3. Center punch and drill 3 each 3/16" holes for the cable mounting ties. One directly above the solar cell at the cover's arc. One at the hinge point and one at the arc directly above the one at the hinge point. Deburr

Figure 3 - Install the Transmitter

4. Remove the antenna rubber radome. Placing the transmitter and fender washer underside the cover, carefully feed the antenna through the tank cover. Apply and hand tighten the 3/8" grooved lock nut. Rotate and position the transmitter for optimum wire routing to the sensor (hinge area) and solar cell. Thigthen 3/8" lock nut with wrench.

5. Slip on the radome and clamp, and applying pressure to seal the radome against the tank cover, secure the clamp with the pinchers.

Figure 4. - Install the Solar Cell

6. Install the Solar Cell assembly as shown ensuring that the small diameter on the vinyl shoulder washers is embedded into the drilled holes. Attach the terminal leads and tighten the lock nuts with the 5/16" nutdriver. Make sure that electrical contact is not made with the tank cover.

7. Install the cable tie until the tab is flatten against the inside of the cover. Route the cable into the tie double looping any excess. Twist lock the tie securing the cable.

8. Replace cover on the tank.

Figure 5a - Install the Sensor Assembly

(Rochester and Sherwood Float Assemblies)

9a. Remove the two screws and gauge. Reinstall the sensor and gauge as shown using the #6-5/8 screws supplied.

10a. Install two cable ties and the cable as done on the solar cell. Double loop any excess on the upper tie.

Figure 5b - Install the Sensor Assembly

(Squibb Taylor Float Assembly)

9b. Remove the two screws and gauge. Reinstall the gauge as shown using the screws that were removed.

10b. Install two cable ties and the cable as done on the solar cell. Double loop any excess on the upper tie.

Figure 6 - Prepare Transmitter for RF Test

12. Remove tape covering the hole on the side of the transmitter. Place the Battery Pack on the tank and insert the plug into the transmitter. The Battery Pack was designed to prevent spark ignition in a hazardous environment. **Do not substitute with any other power source**.

13. Write down the ID number etched on the transmitter lid in the lower right hand corner and from the maximum fill percentage from the manufacturers label on the on the propane tank. This and the serial number of the unit from the box will be needed later for programming.

Figure 8 - Controller Installation - Wall Mount Only

14. Position the 8" level and the side with the notches spaced at 4 inches (grooved edge), at the desired location in horizontal level. Mark the 4" notch locations. Drill and use the applicable hardware as required given the wall materials and structure. Install the mounting screws to the point where they protrusion depth from the wall aligns with the notch on the end of the level.

15. Install the Controller Unit and make any adjustments necessary to snuggly secure the unit.

Figure 9 - Phone Connections

16. The unit can handle up to two phone lines. Line 1 is used by the unit. On the bottom of the case the phone jacks are labeled "IN" and "OUT". Line "IN" is the telephone line cord. Line "OUT" may be used to connect to other phone accessories such as a phone set.

Programming the Controller Unit

1. To reset the unit at any time unplug and replug the power or press **SHIFT** and **ESCAPE** simultaneously.
2. Unplug the power. Plug in the handheld and replug in the power. Within about ten seconds the unit will display four options.

   F1: Program Unit

   F2: Upload Records

   F3: RF Test

   F4: Troubleshooting
3. For **F1: Program Unit** you will need the maximun fill percent from the propane tank label, the serial number of the unit from the shipping box and the ID number off the transmitter unit. To program the unit press **F1**, then **Enter** .
4. **Number of tanks:** enter up to **3**, then press **Enter**.
5. Enter the Serial Number of the tank #1, then press **Enter**.
6. Enter the maximum fill level, just numerical digits, from the propane tank manufacturers label. Usually a number between 80 and 93 percent.
7. Enter the label ID number, then press **Enter**.
8. Repeat steps 5, 6, and 7 for tanks 2 and 3 if applicable.

Programming the Controller Unit (cont.)

9. For **F2: Upload Records**, the Add Customer form should of been filled out at the office PC and downloaded to RSS's server so the upload records function can be enabled. Press **F2**, then **ENTER**.
10. For **F3: RF Test**, the test will require that the battery pack is plugged into the transmitter unit. The unit senses the battery pack is plugged in and begins transmitting every 2.3 seconds. A successful RF test occurs when 30 out of 40 (75%) transmissions are received. During thetest the transmissions will be displayed as a "P" for pass or "F" for fail. To start the test press **F3**, then **ENTER**.
11.