

*FCC PART 15, SUBPART B and C
TEST REPORT**for***NETWORK RADIO****MODEL: SR7100 - SCU**

Prepared for

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DATE: NOVEMBER 22, 2002

	REPORT BODY	APPENDICES					TOTAL
		<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	
PAGES	20	2	2	2	15	25	66

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GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Compatible Electronics Inc., which is an independent testing and consulting firm. The test report is based on testing performed by Compatible Electronics personnel according to the measurement procedures described in the test specifications given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced without the written permission of Compatible Electronics, unless done so in full.

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

Device Tested: Network Radio
Model: SR7100 - SCU
S/N: N/A

Product Description: See Expository Statement.

Modifications: The EUT was not modified during the testing.

Manufacturer: NavCom Technology, Inc.
123 West Torrance Blvd., Suite 101
Redondo Beach, California 90277

Test Dates: February 6, 7, and 13, 2003

Test Specifications: EMI requirements
CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.207, 15.209, and 15.247

Test Procedure: ANSI C63.4: 1992

Test Deviations: The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 150 kHz – 30 MHz	Complies with the Class B limits of CFR Title 47, Part 15, Subpart B, section 15.207
2	Spurious Radiated RF Emissions of the Transmitter Portion, 10 kHz – 25000 MHz	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247(c)
3	Spurious Radiated RF Emissions of the Digital Portion, 10 kHz – 25000 MHz	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247(c)
4	Fundamental and Emissions produced by the intentional radiator in non-restricted bands, 10 kHz – 25 GHz	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247(c)
5	Emissions produced by the intentional radiator in restricted bands, 10 kHz – 25 GHz	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.205 and 15.209(a)
6	6 dB Bandwidth	This test was not performed because the EUT uses the exact same radio as the Network Radio Model: SR7100 (Compatible Electronics Report Number: B21122D1)
7	Maximum Peak Output Power	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247 (b)(1)
8	RF Antenna Conducted	This test was not performed because the EUT uses the exact same radio as the Network Radio Model: SR7100 (Compatible Electronics Report Number: B21122D1)
9	Peak Power Spectral Density	This test was not performed because the EUT uses the exact same radio as the Network Radio Model: SR7100 (Compatible Electronics Report Number: B21122D1)

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the Network Radio Model: SR7100 - SCU. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4: 1992. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as EUT hereafter, are within the Class B specification limits defined by CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.207, 15.209, and 15.247.

Note: For the unintentional radiator portion of the test, the EUT was within the **Class B** specification limits defined by CFR Title 47, Part 15, Subpart B.

2. ADMINISTRATIVE DATA

2.1 Location of Testing

The EMI tests described herein were performed at the test facility of Compatible Electronics, 114 Olinda Drive, Brea, California 92823.

2.2 Traceability Statement

The calibration certificates of all test equipment used during the test are on file at the location of the test. The calibration is traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

NavCom Technology, Inc.

Michael H. Mikasa Senior RF Engineer

Compatible Electronics, Inc.

Kyle Fujimoto Test Engineer

Michael Christensen Test Engineer

2.4 Date Test Sample was Received

The test sample was received on February 6, 2003.

2.5 Disposition of the Test Sample

The sample was returned to NavCom Technology, Inc. on February 13, 2003.

2.6 Abbreviations and Acronyms

The following abbreviations and acronyms may be used in this document.

RF	Radio Frequency
EMI	Electromagnetic Interference
EUT	Equipment Under Test
P/N	Part Number
S/N	Serial Number
HP	Hewlett Packard
ITE	Information Technology Equipment
CML	Corrected Meter Limit
LISN	Line Impedance Stabilization Network

3. APPLICABLE DOCUMENTS

The following documents are referenced or used in the preparation of this EMI Test Report.

SPEC	TITLE
FCC Title 47, Part 15 Subpart C	FCC Rules - Radio frequency devices (including digital devices) – Intentional Radiators
ANSI C63.4 1992	Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz
FCC Title 47, Part 15 Subpart B	FCC Rules - Radio frequency devices (including digital devices) – Unintentional Radiators

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration - EMI

Setup and operation of the equipment under test.

Specifics of the EUT and Peripherals Tested

The Network Radio Model: SR7100 - SCU (EUT) was connected to a port expansion box, two antennas, and a Dell laptop computer via its asynchronous, the two antenna, and ethernet ports, respectively. The port expansion box was also connected to the AC Adapter, Dell laptop computer, and Compaq laptop computer via its power, com 1, and com 2 ports, respectively.

Operation of the EUT during the testing

For the intentional radiator portion of the test - The EUT used a program that locked one channel at a time so that the low, middle, and high channels could be tested.

For the unintentional radiator and conducted emission portion of the test - The EUT used a program that allowed the EUT to function with normal transmission on a continuous basis.

The final radiated as well as the conducted data was taken in the mode above. Please see Appendix E for the data sheets.

4.1.1 Cable Construction and Termination

- Cable 1** This is a 2 meter braid shielded cable connecting the long antenna to the EUT. It has a metallic SMA connector at the EUT end and is hard wired into the long antenna. The cable was bundled to a length of 1 meter. The shield of the cable was grounded to the chassis via the connector.
- Cable 2** This is a 2 meter braid shielded cable connecting the long antenna to the EUT. It has a metallic SMA connector at the EUT end and is hard wired into the long antenna. The cable was bundled to a length of 1 meter. The shield of the cable was grounded to the chassis via the connector.
- Cable 3** This is a 4 foot unshielded cable connecting the AC Adapter to the port expansion box. It has a 5 pin DIN connector at the port expansion box end and is hard wired into the AC Adapter. The cable has a molded ferrite at the AC Adapter end.
- Cable 4** This is a 1 ½ foot braid and foil shield cable connecting the port expansion box to the EUT. It has a 4 pin Deutsch connector at each end. The shield of the cable was left unterminated at both ends.
- Cable 5** This is a 15 foot braid and foil shielded cable connecting the EUT to the Dell laptop computer. It has a 4 pin Deutsch connector at the EUT end. The shield of the cable was left unterminated at both ends.
- Cable 6** This is a 15 foot unshielded cable connecting the port expansion box to the Dell laptop computer. It has an RJ-45 connector at each end.
- Cable 7** This is a 15 foot unshielded cable connecting the port expansion box to the Compaq laptop computer. It has an RJ-45 at the port expansion end and a D-9 metallic pin connector at the serial end.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT**5.1 EUT and Accessory List**

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
NETWORK RADIO (EUT)	NAVCOM TECHNOLOGY, INC.	SR7100 - SCU	N/A	QRL-SR7100 - SCU
SWITCHING POWER SUPPLY	GPC	SPU45-203	50002949	N/A
BASE STATION ANTENNA	COMTELCO	BS2400XL6	N/A	N/A
STUB ANTENNA	MOBILE MARK COMMUNICATOINS	PSTG0-2400HS	N/A	N/A
LAPTOP	DELL	PP01X	8LVJV01	DoC
LAPTOP	COMPAQ	ARMADA 3500	N/A	DoC

5.2 EMI Test Equipment

EQUIPMENT TYPE	MANU- FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. DUE DATE
Radiate Emissions Data Capture Program	Compatible Electronics	2.0	N/A	N/A	N/A
Emissions Program	Compatible Electronics, Inc.	2.3 (SR19)	N/A	N/A	N/A
Spectrum Analyzer – Main Section	Hewlett Packard	8566B	3638A08768	June 21, 2002	June 21, 2003
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	3701A22262	June 21, 2002	June 21, 2003
Spectrum Analyzer – Quasi-Peak Adapter	Hewlett Packard	85650A	2811A01363	June 21, 2002	June 21, 2003
Preamplifier	Com Power	PA-102	1202	Sept. 18, 2002	Sept. 18, 2003
Biconical Antenna	Com Power	AB-900	15011	July 15, 2002	July 15, 2003
Log Periodic Antenna	Com Power	AL-100	01117	Oct. 4, 2002	Oct. 4, 2003
RF Attenuator	Weinschel Corp.	2	BJ6394	July 30, 2002	July 30, 2003
LISN	Com-Power	LI-215	12090	Nov. 18, 2002	Nov. 18, 2003
LISN	Com-Power	LI-215	12076	Nov. 18, 2002	Nov. 18, 2003
Loop Antenna	Com-Power	AL-130	17070	June 19, 2002	June 19, 2003
Horn Antenna	Com-Power	AH-118	10073	Jan. 21, 2002	Jan. 21, 2004
Microwave Preamplifier	Com-Power	PA-122	25195	Jan. 2, 2003	Jan. 2, 2004
Amplifier	Hewlett Packard	11975A	2403A00202	Mar. 14, 2002	Mar. 14, 2003
Harmonic Mixer	Hewlett Packard	11970K	3003A05460	Mar. 14, 2002	Mar. 14, 2003
Power Meter	Hewlett Packard	436A	22236A15362	May 25, 2002	May 25, 2003
Power Sensor	Hewlett Packard	80401A	1830892	May 25, 2002	May 25, 2003
Microwave Preamplifier	Com-Power	PA-840	711013	Mar. 6, 2002	Mar. 6, 2003
Horn Antenna	Antenna Research	MWH- 1826/B	1011	Nov. 3, 2001	Nov. 3, 2003

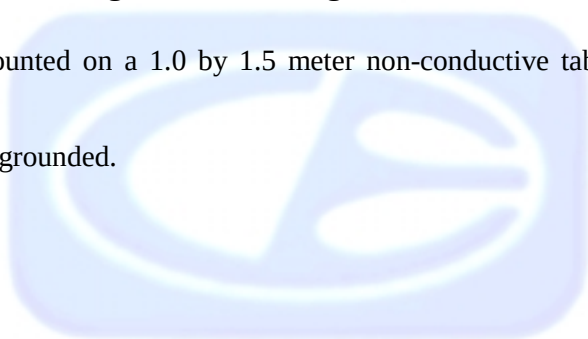
6. TEST SITE DESCRIPTION**6.1 Test Facility Description**

Please refer to section 2.1 and 7.1 of this report for EMI test location.

6.2 EUT Mounting, Bonding and Grounding

The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

The EUT was not grounded.



7. CHARACTERISTICS OF THE TRANSMITTER

7.1 Transmitter Power

Transmit power is herein defined as the power delivered to a 50 Ohm load at the RF output of the EUT.

Please see the data sheet located in Appendix E. The data sheet will be after the “Peak Output Power” cover page.

7.2 Antenna Gain

The antenna gain is 5.5 dBi for the base station antenna and unity gain for the stub antenna.

8. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests. Test results are also included in this section.

8.1 RF Emissions

8.1.1 Conducted Emissions Test

The spectrum analyzer was used as a measuring meter. The data was collected with the spectrum analyzer in the peak detect mode with the "Max Hold" feature activated. The quasi-peak was used only where indicated in the data sheets. A 10 dB attenuation pad was used for the protection of the spectrum analyzer input stage, and the offset was adjusted accordingly to read the actual data measured. The LISN output was measured using the spectrum analyzer. The output of the second LISN was terminated by a 50 ohm termination. The effective measurement bandwidth used for this test was 9 kHz.

Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The EUT was powered through the LISN, which was bonded to the ground plane. The LISN power was filtered and the filter was bonded to the ground plane. The EUT was set up with the minimum distances from any conductive surfaces as specified in ANSI C63.4: 1992. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

The conducted emissions from the EUT were maximized for operating mode as well as cable placement. The final data was collected under program control by the Compatible Electronics conducted emissions software in several overlapping sweeps by running the spectrum analyzer at a minimum scan rate of 10 seconds per octave. The final qualification data is located in Appendix E.

Test Results:

The EUT complies with the **Class B** limits of **CFR** Title 47, Part 15, Subpart B; and the limits of **CFR** Title 47, Part 15, Subpart C, Section 15.207 for conducted emissions.

8.1.2 Radiated Emissions (Spurious and Harmonics) Test

The spectrum analyzer was used as a measuring meter along with the quasi-peak adapter. Amplifiers were used to increase the sensitivity of the instrument. The Com Power Preamplifier Model: PA-102 was used for frequencies from 30 MHz to 1 GHz, and the Com-Power Microwave Preamplifier Model: PA-122 was used for frequencies above 1 GHz. The spectrum analyzer was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer records the highest measured reading over all the sweeps.

The quasi-peak adapter was used only for those readings which are marked accordingly on the data sheets.

The frequencies above 1 GHz were averaged manually by narrowing the video filter down to 10 Hz and putting the sweep time on AUTO on the spectrum analyzer to keep the amplitude reading calibrated.

After the readings above 1 GHz were average manually, any reading still over the spec limit further adjusted by a "duty cycle correction factor", derived from $20 \log (\text{dwell time} / 100 \text{ ms})$. The duty cycle was 50%.

The measurement bandwidths and transducers used for the radiated emissions test were:

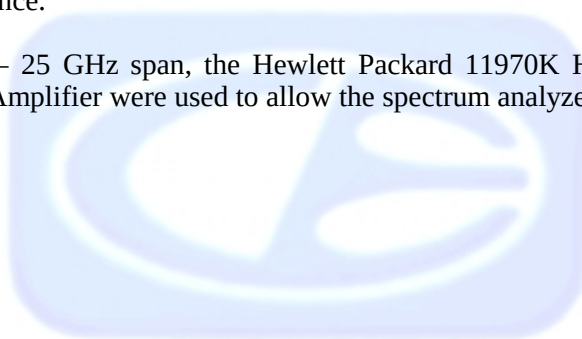
FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
10 kHz to 150 kHz	200 Hz	Active Loop Antenna
150 kHz to 30 MHz	9 kHz	Active Loop Antenna
30 MHz to 300 MHz	120 kHz	Biconical Antenna
300 MHz to 1 GHz	120 kHz	Log Periodic Antenna
1 GHz to 25 GHz	1 MHz	Horn Antenna

The open field test site of Compatible Electronics, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4: 1992. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Data was collected in the worst case (highest emission) configuration of the EUT by the Radiated Emission Manual Test software. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength). The gunsight method was used when measuring with the horn antenna in order to ensure accurate results.

Radiated Emissions (Spurious and Harmonics) Test (con't)

The presence of ambient signals was verified by turning the EUT off. In case an ambient signal was detected, the measurement bandwidth was reduced temporarily and verification was made that an additional adjacent peak did not exist. This ensures that the ambient signal does not hide any emissions from the EUT. The EUT was tested at a 3 meter test distance from 10 kHz to 30 MHz and from 1 GHz to 25 GHz to obtain final test data. From 30 MHz to 1000 MHz, the EUT was tested at a 10 meter test distance.

For the 22 GHz – 25 GHz span, the Hewlett Packard 11970K Harmonic Mixer and the Hewlett Packard 11975A Amplifier were used to allow the spectrum analyzer to scan up to 25 GHz.



8.2 6 dB Bandwidth for Direct Sequence Systems

The 6 dB Bandwidth was taken using the spectrum analyzer. The bandwidth was measured using a direct connection from the RF out on the RF board. The resolution bandwidth was 100 kHz, and the video bandwidth 300 kHz. The spectrum analyzer was offset 30.2 dB to account for external attenuation and cable loss between the EUT and the spectrum analyzer.

Test Results:

This test was not performed because the EUT uses the exact same radio as the Network Radio Model: SR7100 (Compatible Electronics Report Number: **B21122D1**).

8.3 Peak Output Power

The peak output power was taken using the Hewlett Packard 436A Power Meter and the Hewlett Packard 8482H Power Sensor. The low, middle, and high channels were taken.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.209 (b)(1). The maximum peak output power is less than 1 watt.

8.4 Spectral Density Output

The spectral density output was using the spectrum analyzer. The spectral density output power was measured using a direct connection from the RF out on the RF board into the input of the analyzer. The resolution bandwidth was 3 kHz, and the video bandwidth 10 kHz. The highest 4.5 MHz of the signal was used as the frequency span with the sweep rate being 1 second for every 3 kHz of span. The spectrum analyzer was offset 30.2 dB to account for external attenuation and cable loss between the EUT and the spectrum analyzer.

Test Results:

This test was not performed because the EUT uses the exact same radio as the Network Radio Model: SR7100 (Compatible Electronics Report Number: **B21122D1**). Also, the peak power is lower at the middle and high channels so that the EUT could comply with the band edge test.

8.5 RF Antenna Conducted Test

The RF antenna conducted test was taken using the spectrum analyzer. The RF antenna conducted test was measured using a direct connection from the RF out on the RF board into the input of the analyzer. The resolution bandwidth was 100 kHz, and the video bandwidth was set greater than the resolution bandwidth. The spans were wide enough to include all the harmonics and emissions that were produced by the intentional radiator. The spectrum analyzer was offset 30.2 dB to account for external attenuation and cable loss between the EUT and the spectrum analyzer.

Test Results:

This test was not performed because the EUT uses the exact same radio as the Network Radio Model: SR7100 (Compatible Electronics Report Number: **B21122D1**). Also, the peak power is lower at the middle and high channels so that the EUT could comply with the band edge test.

8.6 RF Band Edges

The RF band edges were taken at the beginning of the restricted bands nearest the band edges of the 2.4 GHz ISM spectrum using the spectrum analyzer at 3 meters. Please see section 8.1.2 for on how radiated emission testing is performed.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (c). The emissions at the band edges at 2400 MHz (including the restricted band at 2390 MHz) and 2483.5 MHz meet the limits of section 15.209.

9. CONCLUSIONS

The Network Radio meets all of the specification limits defined in FCC Title 47, Part 15, Subpart C, sections 15.205, 15.207, 15.209, and 15.247.

Note: For the unintentional radiator portion of the test, the EUT was within the **Class B** specification limits defined in CFR Title 47, Part 15, Subpart B.



APPENDIX A

LABORATORY RECOGNITIONS

LABORATORY RECOGNITIONS

Compatible Electronics has the following agency accreditations:

National Voluntary Laboratory Accreditation Program - Lab Code: 200528-0

Voluntary Control Council for Interference - Registration Numbers: R-983, C-1026, R-984 and C-1027

Bureau of Standards and Metrology Inspection - Reference Number: SL2-IN-E-1031

Conformity Assessment Body for the EMC Directive Under the US/EU MRA Appointed by NIST

Compatible Electronics is recognized or on file with the following agencies:

Federal Communications Commission

Industry Canada

Radio-Frequency Technologies (Competent Body)

APPENDIX B

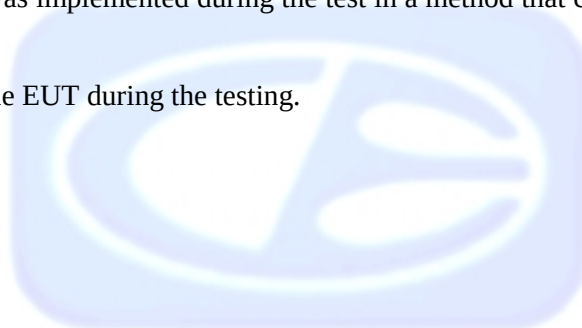
MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC Subpart B and Subpart C specifications.

All the rework described below was implemented during the test in a method that could be reproduced in all the units by the manufacturer.

No modifications were made to the EUT during the testing.



APPENDIX C

***ADDITIONAL MODELS COVERED
UNDER THIS REPORT***

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

Network Radio
Model: SR7100 - SCU
S/N: N/A

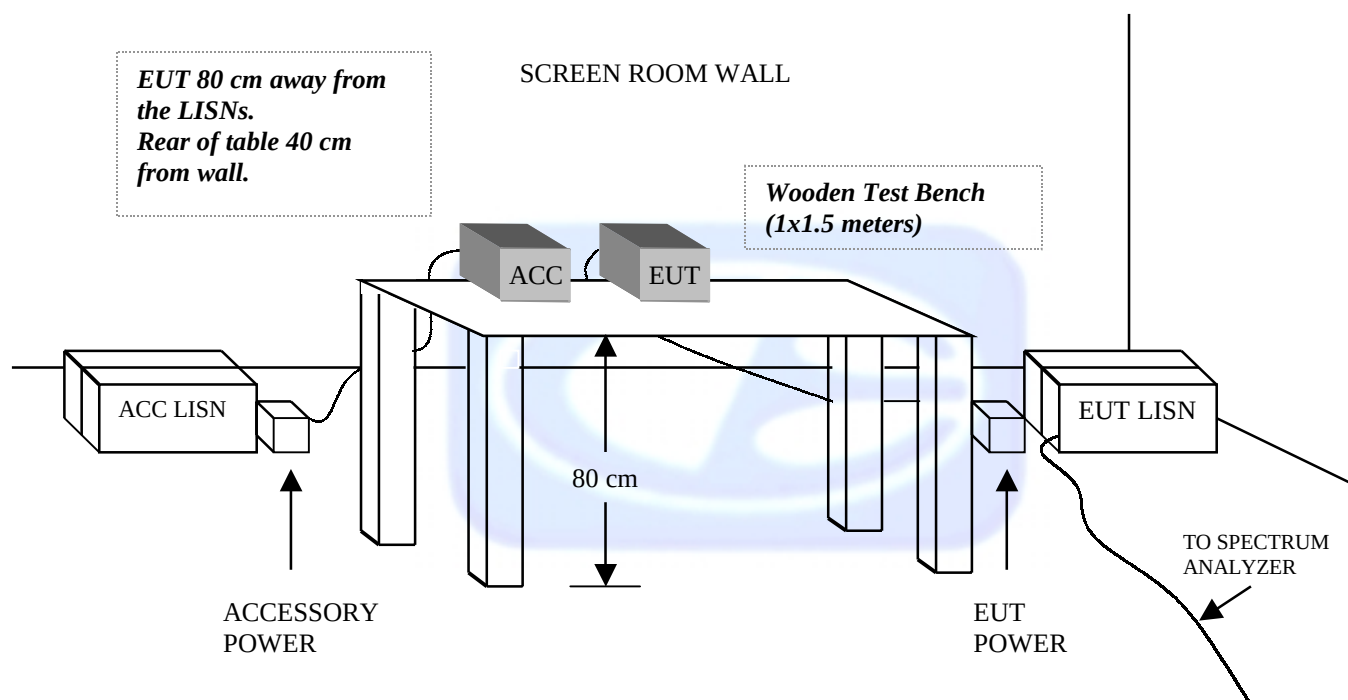
There were no additional models covered under this report.



APPENDIX D

DIAGRAMS, CHARTS, AND PHOTOS

FIGURE 1: CONDUCTED EMISSIONS TEST SETUP



COM-POWER AB-900

BICONICAL ANTENNA

S/N: 15011

CALIBRATION DATE: JULY 15, 2002

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	11.30	120	14.10
35	10.40	125	13.20
40	11.80	140	12.20
45	13.10	150	12.00
50	12.30	160	13.50
60	12.10	175	15.60
70	8.10	180	16.30
80	6.50	200	16.70
90	9.50	250	16.50
100	11.40	300	19.30

COM-POWER AL-100

LOG PERIODIC ANTENNA

S/N: 01117

CALIBRATION DATE: OCTOBER 4, 2002

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	13.80	700	19.50
350	15.40	750	20.70
400	15.80	800	22.00
450	16.00	850	21.90
500	17.20	900	22.50
550	17.00	950	23.40
600	18.40	1000	25.60

COM-POWER PA-102**PREAMPLIFIER**

S/N: 1202

CALIBRATION DATE: SEPTEMBER 18, 2002

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	35.4	300	34.9
40	35.4	350	34.7
50	35.5	400	34.8
60	35.5	450	34.7
70	35.5	500	33.9
80	35.6	550	34.5
90	35.8	600	34.3
100	35.8	650	34.0
125	35.6	700	33.9
150	35.3	750	34.1
175	35.0	800	34.0
200	35.1	850	33.8
225	35.1	900	33.7
250	35.3	950	32.9
275	35.3	1000	33.8

COM-POWER PA-122**MICROWAVE PREAMPLIFIER**

S/N: 25195

CALIBRATION DATE: JANUARY 2, 2003

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	33.3	6.0	32.2
1.1	33.2	6.5	32.2
1.2	33.4	7.0	31.8
1.3	32.8	7.5	32.1
1.4	32.4	8.0	32.7
1.5	32.7	8.5	31.5
1.6	32.1	9.0	30.3
1.7	32.4	9.5	30.0
1.8	32.3	10.0	31.9
1.9	32.6	11.0	29.9
2.0	33.4	12.0	24.7
2.5	31.2	13.0	32.0
3.0	31.2	14.0	30.7
3.5	32.0	15.0	30.1
4.0	31.3	16.0	29.2
4.5	31.2	17.0	28.9
5.0	33.3	18.0	28.7
5.5	34.0		

ANTENNA RESEARCH DRG-118/A**HORN ANTENNA**

S/N: 1053

CALIBRATION DATE: JANUARY 13, 2002

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	25.5	9.5	39.1
1.5	26.6	10.0	39.7
2.0	29.4	10.5	40.9
2.5	30.4	11.0	40.7
3.0	31.2	11.5	42.4
3.5	32.3	12.0	42.6
4.0	32.9	12.5	42.4
4.5	33.0	13.0	41.5
5.0	34.8	13.5	41.0
5.5	35.2	14.0	40.5
6.0	36.4	14.5	43.6
6.5	36.6	15.0	43.7
7.0	38.8	15.5	43.3
7.5	38.8	16.0	42.8
8.0	38.0	16.5	43.0
8.5	38.1	17.0	42.7
9.0	39.9	17.5	44.0
		18.0	41.8

COM-POWER AL-130**LOOP ANTENNA**

S/N: 17070

CALIBRATION DATE: JUNE 19, 2002

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-40.4	11.1
0.01	-40.3	11.2
0.02	-41.2	10.3
0.05	-41.6	9.9
0.07	-41.4	10.1
0.1	-41.7	9.8
0.2	-44.0	7.5
0.3	-41.6	9.9
0.5	-41.3	10.2
0.7	-41.4	10.1
1	-40.9	10.6
2	-40.6	10.9
3	-40.5	11.0
4	-40.8	10.7
5	-40.2	11.3
10	-40.7	10.8
15	-41.4	10.1
20	-41.6	9.9
25	-41.7	9.8
30	-42.9	8.6

COM-POWER AH826

HORN ANTENNA

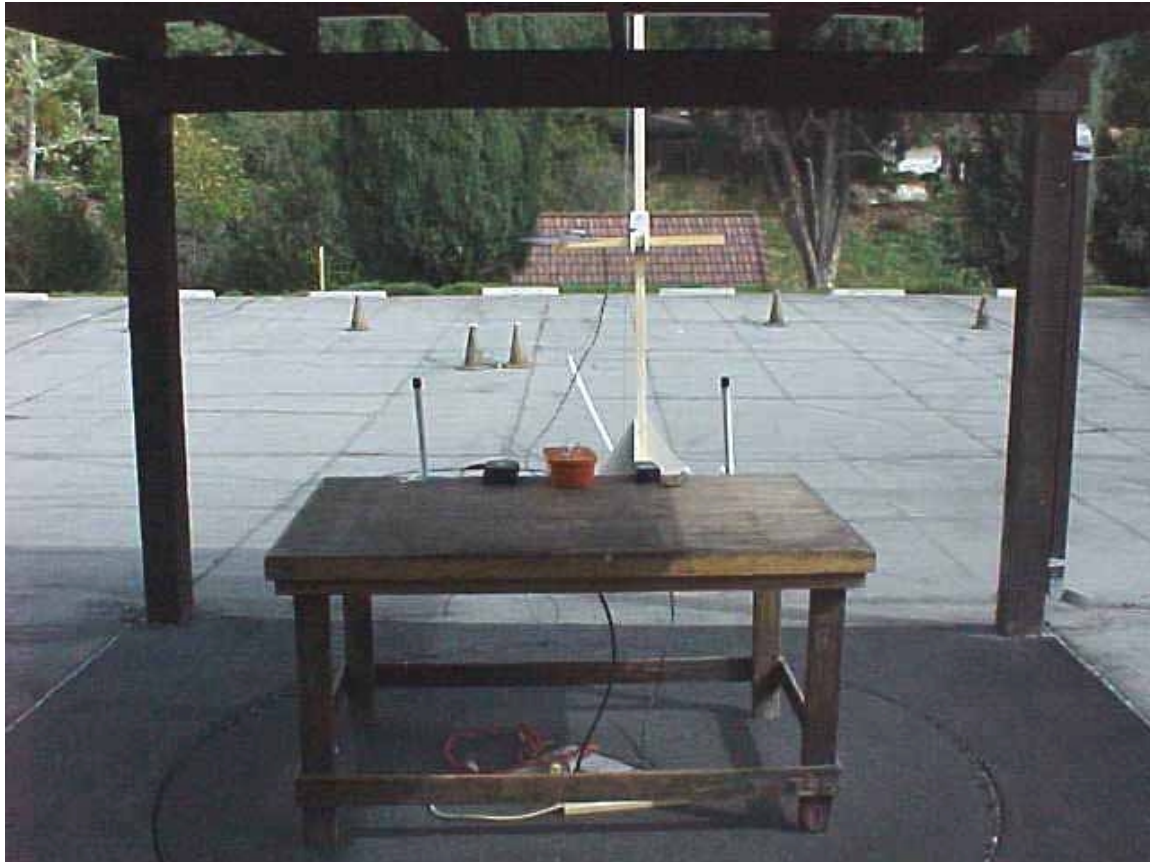
S/N: 0071957

CALIBRATION DATE: NOVEMBER 03, 2001

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
18.0	32.3	22.5	32.5
18.5	32.2	23.0	32.1
19.0	32.3	23.5	32.3
19.5	31.9	24.0	32.3
20.0	32.0	24.5	32.9
20.5	32.3	25.0	33.1
21.0	32.0	25.5	32.9
21.5	32.3	26.0	33.4
22.0	32.5	26.5	33.0

COM-POWER PA-840**MICROWAVE PREAMPLIFIER****S/N: 711013****CALIBRATION DATE: MARCH 06, 2002**

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
18.0	26.4	30.0	27.6
19.0	25.4	31.0	27.3
20.0	24.5	32.0	26.9
21.0	23.9	33.0	26.7
22.0	24.0	34.0	27.0
23.0	24.4	35.0	25.9
24.0	25.2	36.0	25.5
25.0	26.1	37.0	26.2
26.0	26.6	38.0	25.6
27.0	27.2	39.0	23.4
28.0	27.4	40.0	24.3
29.0	27.5		



FRONT VIEW

NAVCOM TECHNOLOGY, INC.

NETWORK RADIO

MODEL: SR7100 - SCU

FCC SUBPART B AND C – RADIATED EMISSIONS – 2-6-03 and 2-7-03

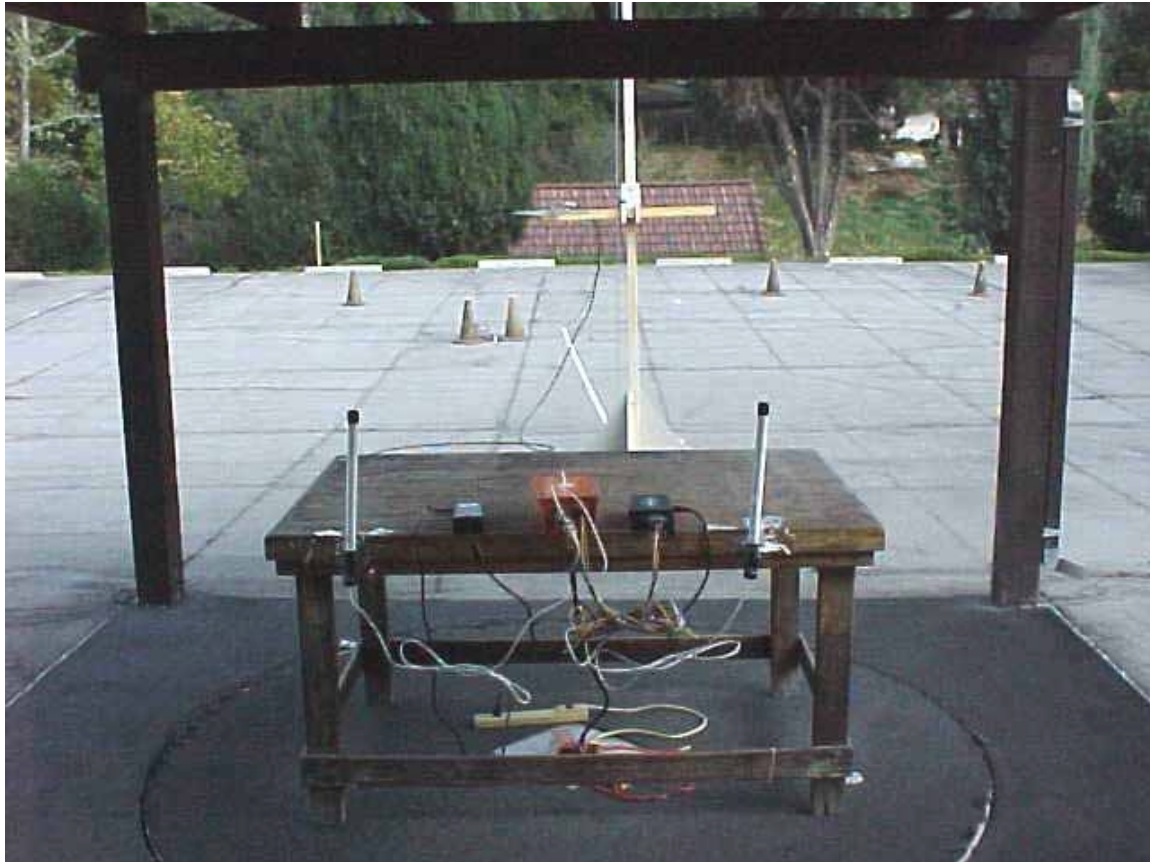
**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**

Brea Division
114 Olinda Drive
Brea, CA 92823
(714) 579-0500

Agoura Division
2337 Troutdale Drive
Agoura, CA 91301
(818) 597-0600

Silverado Division
19121 El Toro Road
Silverado, CA 92676
(949) 589-0700

Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400



REAR VIEW

NAVCOM TECHNOLOGY, INC.

NETWORK RADIO

MODEL: SR7100 - SCU

FCC SUBPART B AND C – RADIATED EMISSIONS – 2-6-03 and 2-7-03

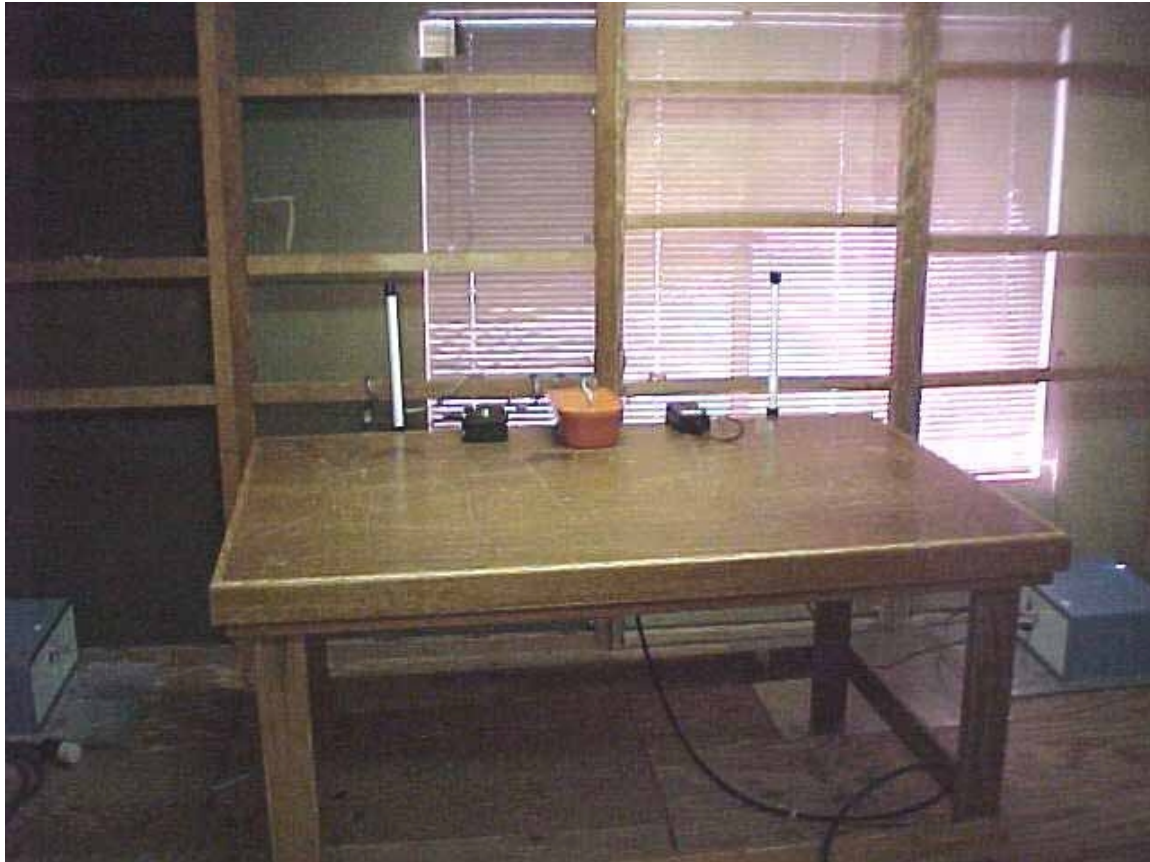
**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**

Brea Division
114 Olinda Drive
Brea, CA 92823
(714) 579-0500

Agoura Division
2337 Troutdale Drive
Agoura, CA 91301
(818) 597-0600

Silverado Division
19121 El Toro Road
Silverado, CA 92676
(949) 589-0700

Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400



FRONT VIEW

NAVCOM TECHNOLOGY, INC.

NETWORK RADIO

MODEL: SR7100 - SCU

FCC SUBPART B AND C – CONDUCTED EMISSIONS – 02-06-03

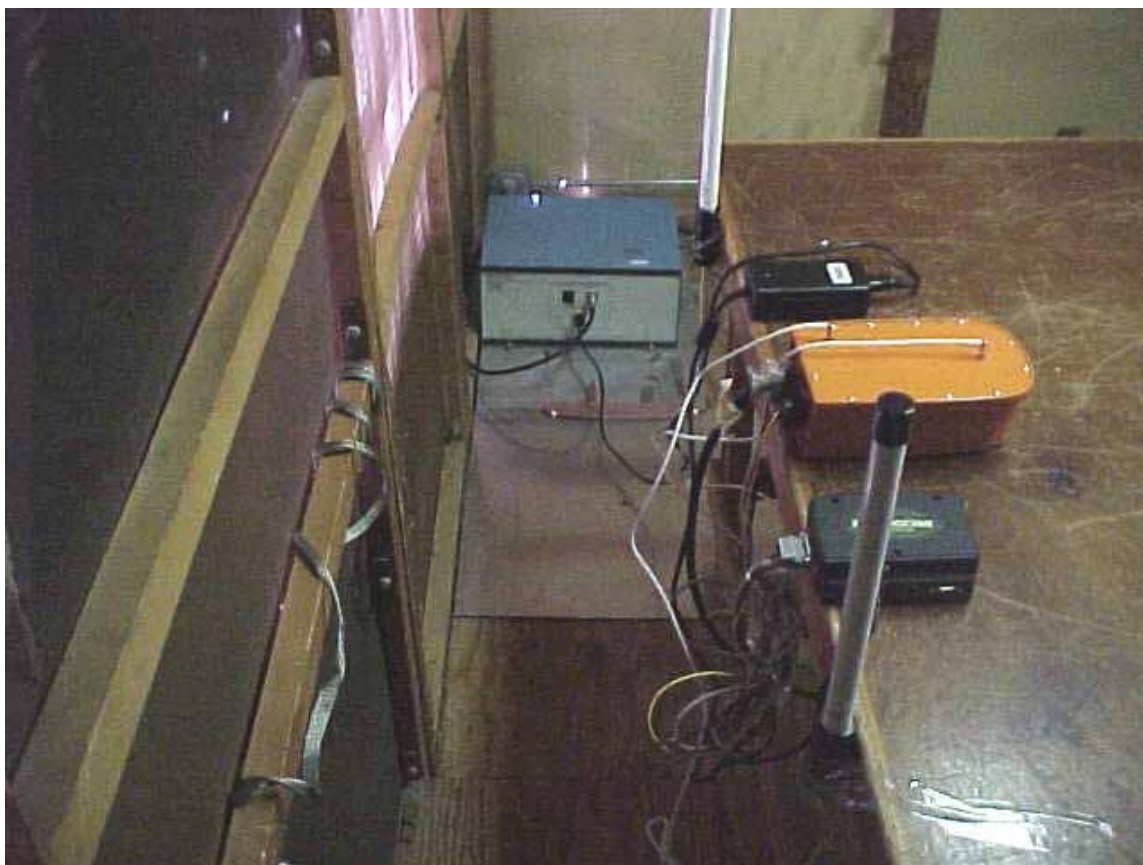
**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**

Brea Division
114 Olinda Drive
Brea, CA 92823
(714) 579-0500

Agoura Division
2337 Troutdale Drive
Agoura, CA 91301
(818) 597-0600

Silverado Division
19121 El Toro Road
Silverado, CA 92676
(949) 589-0700

Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400



REAR VIEW

NAVCOM TECHNOLOGY, INC.
NETWORK RADIO
MODEL: SR7100 - SCU

FCC SUBPART B AND C – CONDUCTED EMISSIONS – 02-06-03

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**

APPENDIX E

DATA SHEETS

RADIATED EMISSIONS

DATA SHEETS

Test Location : Compatible Electronics **Page** : 1/1
Customer : Navcom Technology, Inc. **Date** : 2/07/2003
Manufacturer : Navcom Technology, Inc. **Time** : 10:22:48
Eut name : Network Radio **Lab** : A
Model : SR7100 - SCU **Test Distance** : 3.0 Meters
Serial # : N/A
Specification : FCC Class B
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : Spurious Emissions - 10 kHz to 24500 MHz
Vertical Polarization - with External Antennas (worst case)
Temp. 64 Degrees F., Relative Humidity 55%
Tested By: Kyle Fujimoto

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	Limit = L dBuV/m	Delta R-L dB
1V	36.692	59.60	0.70	11.08	33.20	38.18	40.00	-1.82
2V	36.693Qp	59.36	0.70	11.08	33.20	37.94	40.00	-2.06
3V	48.130	56.90	0.78	10.84	33.28	35.24	40.00	-4.76
4V	57.029	49.60	0.80	10.15	33.23	27.32	40.00	-12.68
5V	70.625	47.10	1.01	7.47	33.20	22.38	40.00	-17.62
6V	86.042	52.90	1.10	6.81	33.20	27.61	40.00	-12.39
7V	96.819	64.00	1.17	9.03	33.20	40.99	43.50	-2.51
8V	96.819Qp	63.01	1.17	9.03	33.20	40.00	43.50	-3.50
9V	120.060	50.30	1.36	12.90	33.12	31.45	43.50	-12.05
10V	121.676	47.20	1.38	12.93	33.11	28.40	43.50	-15.10
11V	139.311	47.60	1.40	13.00	33.16	28.84	43.50	-14.66
12V	145.185	55.70	1.40	12.21	33.18	36.13	43.50	-7.37
13V	170.035	42.30	1.48	13.66	33.12	24.33	43.50	-19.17
14V	200.297	44.90	1.70	16.99	33.10	30.49	43.50	-13.01
15V	242.022	50.10	1.87	15.63	33.00	34.60	46.00	-11.40
16V	267.062	51.00	1.97	16.60	32.93	36.63	46.00	-9.37
17V	387.117	32.10	2.40	15.70	32.80	17.40	46.00	-28.60
18V	435.520	33.30	2.62	15.94	32.73	19.13	46.00	-26.87
19V	483.862	43.10	2.84	16.83	32.56	30.20	46.00	-15.80
20V	580.610	43.20	3.19	17.87	32.62	31.63	46.00	-14.37
21V	677.389	41.00	3.71	19.46	32.34	31.82	46.00	-14.18
22V	960.041	38.00	4.98	23.85	31.88	34.95	54.00	-19.05

Test Location : Compatible Electronics **Page** : 1/1
Customer : Navcom Technology, Inc. **Date** : 2/07/2003
Manufacturer : Navcom Technology, Inc. **Time** : 11:08:57
Eut name : Network Radio **Lab** : A
Model : SR7100 - SCU **Test Distance** : 3.0 Meters
Serial # : N/A
Specification : FCC Class B
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : Spurious Emissions - 10 kHz to 24500 MHz
Horizontal Polarization - With External Antennas (worst case)
Temp. 64 Degrees F., Relative Humidity 55%
Tested By: Kyle Fujimoto

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	Limit = L dBuV/m	Delta R-L dB
1H	30.930	44.50	0.70	11.54	33.20	23.54	40.00	-16.46
2H	35.820	51.00	0.70	10.99	33.20	29.49	40.00	-10.51
3H	96.848	57.40	1.17	9.03	33.20	34.40	43.50	-9.10
4H	114.850	37.80	1.32	12.13	33.14	18.12	43.50	-25.38
5H	120.068	42.90	1.36	12.90	33.12	24.05	43.50	-19.45
6H	127.033	38.50	1.40	13.00	33.11	19.79	43.50	-23.71
7H	190.759	41.70	1.63	16.28	33.10	26.51	43.50	-16.99
8H	241.957	55.60	1.87	15.63	33.00	40.10	46.00	-5.90
9H	267.009	52.30	1.97	16.59	32.93	37.93	46.00	-8.07
10H	338.751	39.80	2.36	15.06	32.82	24.40	46.00	-21.60
11H	387.106	41.50	2.40	15.70	32.80	26.80	46.00	-19.20
12H	435.489	40.10	2.62	15.94	32.73	25.93	46.00	-20.07
13H	483.903	50.50	2.84	16.83	32.56	37.60	46.00	-8.40
14H	628.984	38.00	3.48	18.99	32.52	27.94	46.00	-18.06
15H	629.046	39.00	3.48	18.99	32.52	28.94	46.00	-17.06
16H	774.188	40.10	4.05	21.34	32.15	33.34	46.00	-12.66
17H	822.584	38.00	4.24	21.95	32.28	31.92	46.00	-14.08

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

COMPANY	NAVCOM TECHNOLOGY, INC.	DATE	2/13/03
EUT	NETWORK RADIO - WITH STUB ANTENNA	DUTY CYCLE	50 %
MODEL	SR7100 - SCU	PEAK TO AVG	-6.02059991 dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	KYLE FUJIMOTO	LAB	A

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
2402.5000	104.8	96.6	A	H	1.0	180	LOW	32.3	4.5	31.6	0.0	0.0	101.8			Lowest Data Rate
2404.8000	109.8	100.7	A	H	1.0	180	LOW	32.3	4.4	31.6	0.0	0.0	105.8			Middle Data Rate
2408.6000	109.5	98.2	A	H	1.0	180	LOW	32.3	4.5	31.6	0.0	0.0	103.4			Highest Data Rate
2402.5000	116.5	109.1	A	V	1.5	180	LOW	32.3	4.5	31.6	0.0	0.0	114.3			Lowest Data Rate
2404.8000	119.4	109.9	A	V	1.0	180	LOW	32.3	4.4	31.6	0.0	0.0	115.0			Middle Data Rate
2408.6000	118.0	106.9	A	V	1.0	180	LOW	32.3	4.5	31.6	0.0	0.0	112.1			Highest Data Rate
2439.7000	112.6	101.8	A	H	1.0	180	MID	32.3	4.5	31.5	0.0	0.0	107.2			Highest Data Rate
2435.0700	113.0	104.1	A	H	1.0	180	MID	32.3	4.5	31.5	0.0	0.0	109.4			Middle Data Rate
2436.5000	105.2	96.6	A	H	3.0	0	MID	32.3	4.5	31.5	0.0	0.0	101.9			Lowest Data Rate
2439.7000	117.1	107.0	A	V	1.0	180	MID	32.3	4.5	31.5	0.0	0.0	112.3			Highest Data Rate
2435.0700	116.2	106.5	A	V	1.0	180	MID	32.3	4.5	31.5	0.0	0.0	111.8			Middle Data Rate
2436.5000	114.2	106.1	A	V	1.0	180	MID	32.3	4.5	31.5	0.0	0.0	111.5			Lowest Data Rate
2465.0000	107.0	96.1	A	H	1.0	90	HIGH	32.3	4.6	31.3	0.0	0.0	101.7			Highest Data Rate
2472.8000	111.0	102.1	A	H	1.0	180	HIGH	32.3	4.6	31.3	0.0	0.0	107.6			Middle Data Rate
2478.1000	100.8	93.9	A	H	1.0	90	HIGH	32.3	4.6	31.3	0.0	0.0	99.5			Lowest Data Rate
2465.0000	116.6	105.8	A	V	1.0	90	HIGH	32.3	4.6	31.3	0.0	0.0	111.3			Highest Data Rate
2472.8000	116.5	107.8	A	V	1.0	180	HIGH	32.3	4.6	31.3	0.0	0.0	113.4			Middle Data Rate
2478.1000	115.2	107.0	A	V	1.5	0	HIGH	32.3	4.6	31.3	0.0	0.0	112.5			Lowest Data Rate

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

PAGE 1 of PAGE 3

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

COMPANY	NAVCOM TECHNOLOGY, INC.	DATE	2/13/03
EUT	NETWORK RADIO - WITH STUB ANTENNA	DUTY CYCLE	50 %
MODEL	SR7100 - SCU	PEAK TO AVG	-6.02059991 dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	KYLE FUJIMOTO	LAB	A

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
4805.0000	37.5	28.6	A	H	1.0	90	LOW	33.2	6.3	31.1	0.0	0.0	37.0	-17.1	54.0	Lowest Data Rate
4809.6000	43.2	33.0	A	H	1.0	180	LOW	33.2	6.3	31.1	0.0	0.0	41.3	-12.7	54.0	Middle Data Rate
4817.2000	42.1	30.5	A	H	1.0	180	LOW	33.2	6.3	31.1	0.0	0.0	38.8	-15.2	54.0	Highest Data Rate
4805.0000	37.5	28.5	A	V	1.0	90	LOW	33.2	6.3	31.1	0.0	0.0	36.9	-17.1	54.0	Lowest Data Rate
4809.6000	48.9	37.5	A	V	1.0	90	LOW	33.2	6.3	31.1	0.0	0.0	45.8	-8.2	54.0	Middle Data Rate
4817.2000	43.5	32.2	A	V	1.0	180	LOW	33.2	6.3	31.1	0.0	0.0	40.6	-13.4	54.0	Highest Data Rate
4873.6000	43.2	31.1	A	H	1.0	0	MID	33.4	6.4	31.1	0.0	0.0	39.9	-14.1	54.0	Highest Data Rate
4870.1400	49.2	37.2	A	H	1.0	270	MID	33.4	6.4	31.1	0.0	0.0	45.9	-8.1	54.0	Middle Data Rate
4873.0000	41.5	29.4	A	H	1.0	180	MID	33.4	6.4	31.1	0.0	0.0	38.1	-15.9	54.0	Lowest Data Rate
4873.6000	51.0	38.7	A	V	1.0	180	MID	33.4	6.4	31.1	0.0	0.0	47.5	-6.5	54.0	Highest Data Rate
4870.1400	46.9	35.6	A	V	1.0	90	MID	33.4	6.4	31.1	0.0	0.0	44.4	-9.6	54.0	Middle Data Rate
4873.0000	45.7	35.6	A	V	1.0	0	MID	33.4	6.4	31.1	0.0	0.0	44.4	-9.6	54.0	Lowest Data Rate
4930.0000	44.5	33.9	A	H	1.0	180	HIGH	33.7	6.5	31.0	0.0	0.0	43.1	-11.0	54.0	Highest Data Rate
4945.6000	39.3	29.1	A	H	3.0	90	HIGH	33.7	6.5	31.0	0.0	0.0	38.3	-15.7	54.0	Middle Data Rate
4956.2000	37.5	29.5	A	H	1.0	0	HIGH	33.7	6.5	31.0	0.0	0.0	38.7	-15.3	54.0	Lowest Data Rate
4930.0000	50.8	40.5	A	V	1.0	90	HIGH	33.7	6.5	31.0	0.0	0.0	49.7	-4.3	54.0	Highest Data Rate
4945.6000	45.6	33.8	A	V	1.0	180	HIGH	33.7	6.5	31.0	0.0	0.0	43.0	-11.0	54.0	Middle Data Rate
4956.2000	45.3	33.5	A	V	2.0	0	HIGH	33.7	6.5	31.0	0.0	0.0	42.6	-11.4	54.0	Lowest Data Rate

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN
 ** DELTA = SPEC LIMIT - CORRECTED READING

PAGE 2 of PAGE 3

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

COMPANY	NAVCOM TECHNOLOGY, INC.	DATE	2/13/03
EUT	NETWORK RADIO - WITH STUB ANTENNA	DUTY CYCLE	50 %
MODEL	SR7100 - SCU	PEAK TO AVG	-6.02059991 dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	KYLE FUJIMOTO	LAB	A

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
7207.5000	36.6	27.2 A	H	1.0	180		LOW	41.2	10.2	31.9	0.0	0.0	46.7	-7.3	54.0	Lowest Data Rate
7214.4000	36.4	27.4 A	H	1.0	180		LOW	41.2	10.2	31.9	0.0	0.0	46.9	-7.1	54.0	Middle Data Rate
7225.8000	38.4	27.8 A	H	1.0	0		LOW	41.1	10.2	31.9	0.0	0.0	47.2	-6.8	54.0	Highest Data Rate
7207.5000	36.8	27.4 A	V	1.0	180		LOW	41.2	10.2	31.9	0.0	0.0	46.9	-7.1	54.0	Lowest Data Rate
7214.4000	40.3	29.3 A	V	1.0	180		LOW	41.2	10.2	31.9	0.0	0.0	48.8	-5.2	54.0	Middle Data Rate
7225.8000	37.6	28.6 A	V	1.0	0		LOW	41.1	10.2	31.9	0.0	0.0	47.9	-6.1	54.0	Highest Data Rate
7310.4000	38.0	28.5 A	H	1.0	180		MID	40.6	10.1	31.9	0.0	0.0	47.2	-6.8	54.0	Highest Data Rate
7305.2100	40.1	30.0 A	H	3.0	0		MID	40.6	10.1	31.9	0.0	0.0	48.8	-5.2	54.0	Middle Data Rate
7309.5000	37.6	28.1 A	H	1.0	180		MID	40.6	10.1	31.9	0.0	0.0	46.9	-7.1	54.0	Lowest Data Rate
7310.4000	41.3	31.8 A	V	1.0	0		MID	40.6	10.1	31.9	0.0	0.0	50.6	-3.4	54.0	Highest Data Rate
7305.2100	39.8	30.4 A	V	1.0	0		MID	40.6	10.1	31.9	0.0	0.0	49.2	-4.8	54.0	Middle Data Rate
7309.5000	36.9	28.2 A	V	2.0	180		MID	40.6	10.1	31.9	0.0	0.0	47.0	-7.0	54.0	Lowest Data Rate
7395.0000	37.9	29.0 A	H	2.0	0		HIGH	40.1	10.0	32.0	0.0	0.0	47.0	-7.0	54.0	Highest Data Rate
7418.4000	36.6	29.3 A	H	2.0	0		HIGH	40.0	9.9	32.0	0.0	0.0	47.2	-6.8	54.0	Middle Data Rate
7434.2000	38.1	29.3 A	H	1.0	180		HIGH	39.9	9.9	32.0	0.0	0.0	47.1	-6.9	54.0	Lowest Data Rate
7395.0000	39.0	30.4 A	V	2.0	0		HIGH	40.1	10.0	32.0	0.0	0.0	48.4	-5.6	54.0	Highest Data Rate
7418.4000	38.3	29.5 A	V	1.0	90		HIGH	40.0	9.9	32.0	0.0	0.0	47.4	-6.6	54.0	Middle Data Rate
7434.2000	39.7	29.6 A	V	1.0	90		HIGH	39.9	9.9	32.0	0.0	0.0	47.4	-6.6	54.0	Lowest Data Rate

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN
 ** DELTA = SPEC LIMIT - CORRECTED READING

No Emissions Nor Harmonics Found
 After the 3rd Harmonic

PAGE 3 of PAGE 3

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

COMPANY	NAVCOM TECHNOLOGY, INC.	DATE	2/6/03
EUT	NETWORK RADIO - WITH 5.5 dBi ANTENNA	DUTY CYCLE	50 %
MODEL	SR7100 - SCU	PEAK TO AVG	-6.02059991 dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	KYLE FUJIMOTO	LAB	A

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
2402.5000	112.8	105.0	A	H	1.0	180	LOW	32.3	4.5	31.6	0.0	0.0	110.2			Lowest Data Rate
2404.8000	112.6	103.3	A	H	1.0	180	LOW	32.3	4.4	31.6	0.0	0.0	108.4			Middle Data Rate
2408.6000	108.7	97.7	A	H	1.0	180	LOW	32.3	4.5	31.6	0.0	0.0	102.9			Highest Data Rate
2402.5000	123.9	114.2	A	V	1.0	180	LOW	32.3	4.5	31.6	0.0	0.0	119.4			Lowest Data Rate
2404.8000	122.3	113.9	A	V	1.0	180	LOW	32.3	4.4	31.6	0.0	0.0	119.0			Middle Data Rate
2408.6000	122.2	112.2	A	V	1.0	180	LOW	32.3	4.5	31.6	0.0	0.0	117.4			Highest Data Rate
2439.7000	110.4	99.5	A	H	1.0	180	MID	32.3	4.5	31.5	0.0	0.0	104.9			Highest Data Rate
2435.0700	108.9	98.5	A	H	1.0	180	MID	32.3	4.5	31.5	0.0	0.0	103.8			Middle Data Rate
2436.5000	107.6	97.5	A	H	1.0	270	MID	32.3	4.5	31.5	0.0	0.0	102.8			Lowest Data Rate
2439.7000	120.5	110.6	A	V	1.0	180	MID	32.3	4.5	31.5	0.0	0.0	115.9			Highest Data Rate
2435.0700	122.1	111.4	A	V	1.0	180	MID	32.3	4.5	31.5	0.0	0.0	116.7			Middle Data Rate
2436.5000	120.2	111.8	A	V	1.0	180	MID	32.3	4.5	31.5	0.0	0.0	117.2			Lowest Data Rate
2465.0000	109.3	99.0	A	H	1.0	90	HIGH	32.3	4.6	31.3	0.0	0.0	104.6			Highest Data Rate
2472.8000	108.4	96.6	A	H	1.0	180	HIGH	32.3	4.6	31.3	0.0	0.0	102.1			Middle Data Rate
2478.1000	99.5	92.2	A	H	1.0	90	HIGH	32.3	4.6	31.3	0.0	0.0	97.8			Lowest Data Rate
2465.0000	121.1	110.2	A	V	1.0	0	HIGH	32.3	4.6	31.3	0.0	0.0	115.8			Highest Data Rate
2472.8000	121.5	112.5	A	V	1.0	180	HIGH	32.3	4.6	31.3	0.0	0.0	118.1			Middle Data Rate
2478.1000	117.6	110.6	A	V	1.5	0	HIGH	32.3	4.6	31.3	0.0	0.0	116.1			Lowest Data Rate

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

PAGE 1 of PAGE 3

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

COMPANY	NAVCOM TECHNOLOGY, INC.	DATE	2/6/03
EUT	NETWORK RADIO - WITH 5.5 dBi ANTENNA	DUTY CYCLE	50 %
MODEL	SR7100 - SCU	PEAK TO AVG	-6.02059991 dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	KYLE FUJIMOTO	LAB	A

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
4805.0000	36.9	28.5 A	H	1.0	0		LOW	33.2	6.3	32.5	0.0	0.0	35.5	-18.5	54.0	Lowest Data Rate
4809.6000	37.2	29.5 A	H	1.0	180		LOW	33.2	6.3	32.5	0.0	0.0	36.4	-17.6	54.0	Middle Data Rate
4817.2000	36.7	28.0 A	H	1.0	180		LOW	33.2	6.3	32.5	0.0	0.0	34.9	-19.1	54.0	Highest Data Rate
4805.0000	38.0	29.0 A	V	1.0	180		LOW	33.2	6.3	32.5	0.0	0.0	36.0	-18.0	54.0	Lowest Data Rate
4809.6000	44.3	32.5 A	V	1.0	180		LOW	33.2	6.3	32.5	0.0	0.0	39.4	-14.6	54.0	Middle Data Rate
4817.2000	37.2	28.1 A	V	1.0	180		LOW	33.2	6.3	32.5	0.0	0.0	35.1	-18.9	54.0	Highest Data Rate
4873.6000	37.0	27.7 A	H	1.0	0		MID	33.4	6.4	32.8	0.0	0.0	34.8	-19.3	54.0	Highest Data Rate
4870.1400	37.4	28.6 A	H	1.0	180		MID	33.4	6.4	32.8	0.0	0.0	35.6	-18.5	54.0	Middle Data Rate
4873.0000	39.5	30.1 A	H	1.0	180		MID	33.4	6.4	32.8	0.0	0.0	37.1	-16.9	54.0	Lowest Data Rate
4873.6000	36.4	28.0 A	V	1.0	90		MID	33.4	6.4	32.8	0.0	0.0	35.0	-19.0	54.0	Highest Data Rate
4870.1400	36.9	28.9 A	V	1.0	180		MID	33.4	6.4	32.8	0.0	0.0	35.9	-18.1	54.0	Middle Data Rate
4873.0000	44.4	32.9 A	V	1.0	180		MID	33.4	6.4	32.8	0.0	0.0	40.0	-14.0	54.0	Lowest Data Rate
4930.0000	36.3	28.1 A	H	1.0	180		HIGH	33.7	6.5	33.0	0.0	0.0	35.3	-18.7	54.0	Highest Data Rate
4945.6000	35.7	28.4 A	H	1.0	270		HIGH	33.7	6.5	33.0	0.0	0.0	35.6	-18.4	54.0	Middle Data Rate
4956.2000	36.6	29.9 A	H	1.0	180		HIGH	33.7	6.5	33.0	0.0	0.0	37.1	-16.9	54.0	Lowest Data Rate
4930.0000	38.6	28.4 A	V	1.0	0		HIGH	33.7	6.5	33.0	0.0	0.0	35.6	-18.4	54.0	Highest Data Rate
4945.6000	47.2	36.0 A	V	1.0	180		HIGH	33.7	6.5	33.0	0.0	0.0	43.2	-10.8	54.0	Middle Data Rate
4956.2000	46.4	34.4 A	V	2.0	180		HIGH	33.7	6.5	33.0	0.0	0.0	41.6	-12.4	54.0	Lowest Data Rate

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

PAGE 2 of PAGE 3

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

COMPANY	NAVCOM TECHNOLOGY, INC.	DATE	2/6/03
EUT	NETWORK RADIO - WITH 5.5 dBi ANTENNA	DUTY CYCLE	50 %
MODEL	SR7100 - SCU	PEAK TO AVG	-6.02059991 dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	KYLE FUJIMOTO	LAB	A

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
7207.5000	34.6	25.6	A	H	1.0	180	LOW	41.2	10.2	31.9	0.0	0.0	45.1	-8.9	54.0	Lowest Data Rate
7214.4000	33.5	24.6	A	V	1.0	180	LOW	41.2	10.2	31.9	0.0	0.0	44.1	-9.9	54.0	Middle Data Rate
7225.8000	37.5	27.3	A	H	1.0	180	LOW	41.1	10.2	31.9	0.0	0.0	46.8	-7.2	54.0	Highest Data Rate
7207.5000	37.0	28.0	A	V	1.0	180	LOW	41.2	10.2	31.9	0.0	0.0	47.5	-6.5	54.0	Lowest Data Rate
7214.4000	34.7	26.5	A	V	1.0	180	LOW	41.2	10.2	31.9	0.0	0.0	46.0	-8.0	54.0	Middle Data Rate
7225.8000	37.0	27.4	A	V	1.0	90	LOW	41.1	10.2	31.9	0.0	0.0	46.8	-7.2	54.0	Highest Data Rate
7310.4000	36.6	28.1	A	H	1.0	180	MID	40.6	10.1	31.9	0.0	0.0	46.9	-7.1	54.0	Highest Data Rate
7305.2100	36.2	27.7	A	H	1.0	0	MID	40.6	10.1	31.9	0.0	0.0	46.5	-7.5	54.0	Middle Data Rate
7309.5000	36.5	27.9	A	H	1.0	180	MID	40.6	10.1	31.9	0.0	0.0	46.7	-7.4	54.0	Lowest Data Rate
7310.4000	35.2	26.2	A	V	1.0	90	MID	40.6	10.1	31.9	0.0	0.0	45.0	-9.0	54.0	Highest Data Rate
7305.2100	35.5	28.1	A	V	1.0	90	MID	40.6	10.1	31.9	0.0	0.0	46.9	-7.1	54.0	Middle Data Rate
7309.5000	37.8	27.8	A	V	1.0	180	MID	40.6	10.1	31.9	0.0	0.0	46.6	-7.4	54.0	Lowest Data Rate
7395.0000	38.0	28.8	A	H	1.0	0	HIGH	40.1	10.0	32.0	0.0	0.0	46.9	-7.1	54.0	Highest Data Rate
7418.4000	36.5	30.1	A	H	1.0	0	HIGH	40.0	9.9	32.0	0.0	0.0	48.0	-6.0	54.0	Middle Data Rate
7434.2000	40.7	29.7	A	H	1.0	0	HIGH	39.9	9.9	32.0	0.0	0.0	47.5	-6.5	54.0	Lowest Data Rate
7395.0000	37.9	27.8	A	V	1.0	180	HIGH	40.1	10.0	32.0	0.0	0.0	45.9	-8.1	54.0	Highest Data Rate
7418.4000	38.3	29.1	A	V	1.0	180	HIGH	40.0	9.9	32.0	0.0	0.0	47.0	-7.0	54.0	Middle Data Rate
7434.2000	38.3	29.7	A	V	2.0	180	HIGH	39.9	9.9	32.0	0.0	0.0	47.5	-6.5	54.0	Lowest Data Rate

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN
 ** DELTA = SPEC LIMIT - CORRECTED READING

No Emissions Nor Harmonics Found
 After the 3rd Harmonic

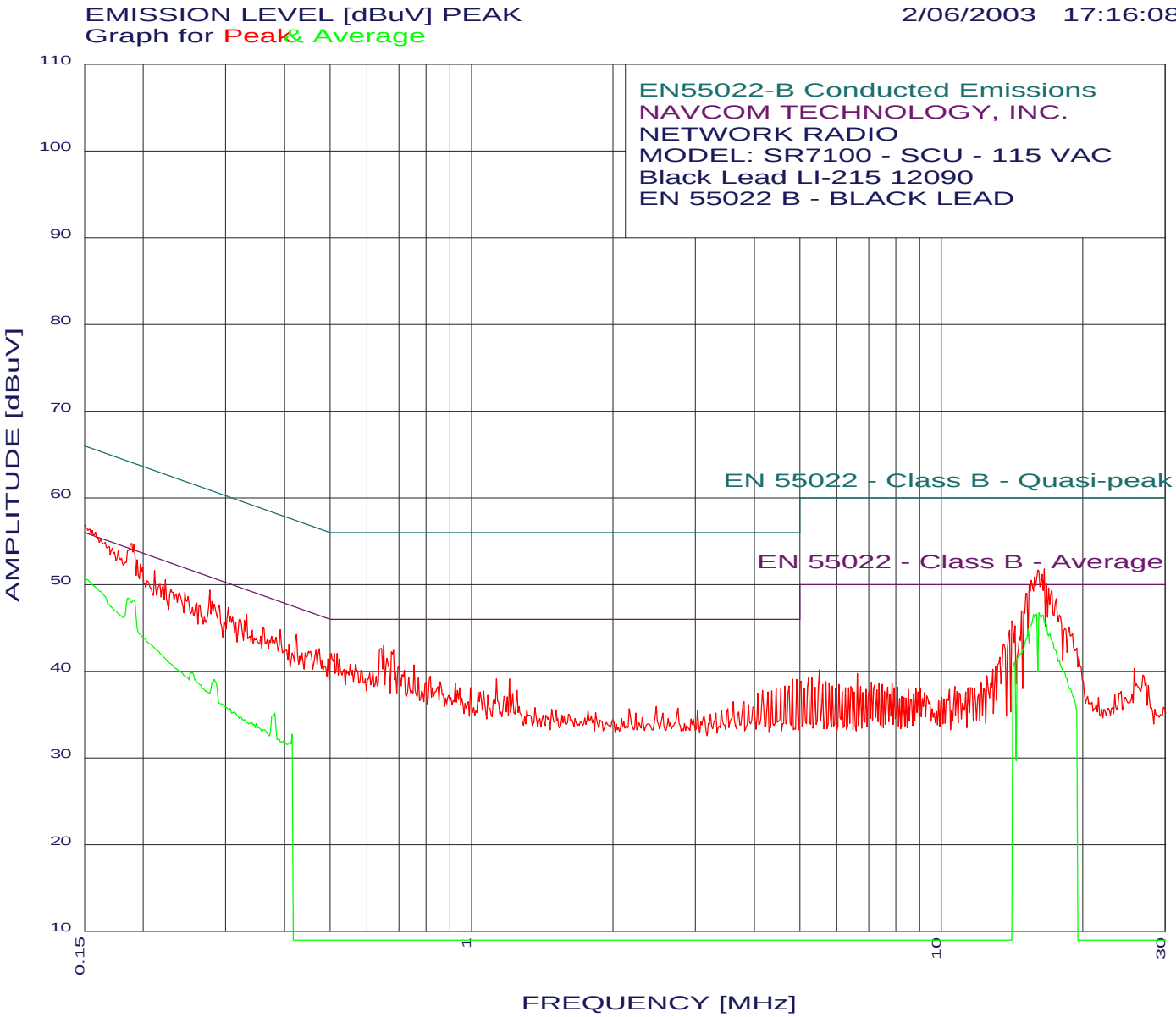
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CONDUCTED EMISSIONS

DATA SHEETS



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Brea Division
114 Olinda Drive
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(714) 579-0500

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2337 Troutdale Drive
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(949) 589-0700

Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

NAVCOM TECHNOLOGY, INC.
NETWORK RADIO
MODEL: SR 7100 - SCU - 115 VAC
EN 55022 B - BLACK LEAD
TEST ENGINEER : KYLE FUJIMOTO

30 highest peaks above -50.00 dB of EN 55022 - Class B - Average limit line

Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	16.582	51.77	50.00	1.77*
2	16.059	51.63	50.00	1.63*
3	16.404	51.16	50.00	1.16*
4	0.150	56.84	56.00	0.84*
5	0.189	54.73	54.06	0.67*
6	15.561	50.50	50.00	0.50*
7	16.760	50.19	50.00	0.19*
8	16.938	49.60	50.00	-0.40*
9	17.205	49.31	50.00	-0.69*
10	0.177	53.93	54.63	-0.70*
11	0.195	52.83	53.84	-1.01*
12	15.229	48.97	50.00	-1.03*
13	0.198	52.32	53.71	-1.39*
14	0.212	51.62	53.14	-1.52*
15	0.277	49.32	50.89	-1.58*
16	17.573	48.33	50.00	-1.67*
17	0.223	50.52	52.70	-2.17*
18	0.246	49.12	51.90	-2.79*
19	0.280	48.02	50.81	-2.79*
20	0.304	47.32	50.14	-2.83*
21	0.221	49.92	52.78	-2.86*
22	0.291	47.62	50.49	-2.88*
23	0.332	46.51	49.39	-2.88*
24	0.217	50.02	52.91	-2.89*
25	0.651	43.00	46.00	-3.00
26	14.835	46.95	50.00	-3.05
27	0.229	49.42	52.48	-3.06*
28	0.239	49.02	52.12	-3.10*
29	0.424	44.21	47.37	-3.16*
30	0.391	44.81	48.03	-3.22*

* Please See the Average Readings on the Next Page and on the Plot

NAVCOM TECHNOLOGY, INC.
NETWORK RADIO
MODEL: SR 7100 - SCU - 115 VAC
EN 55022 B - BLACK LEAD
TEST ENGINEER : KYLE FUJIMOTO

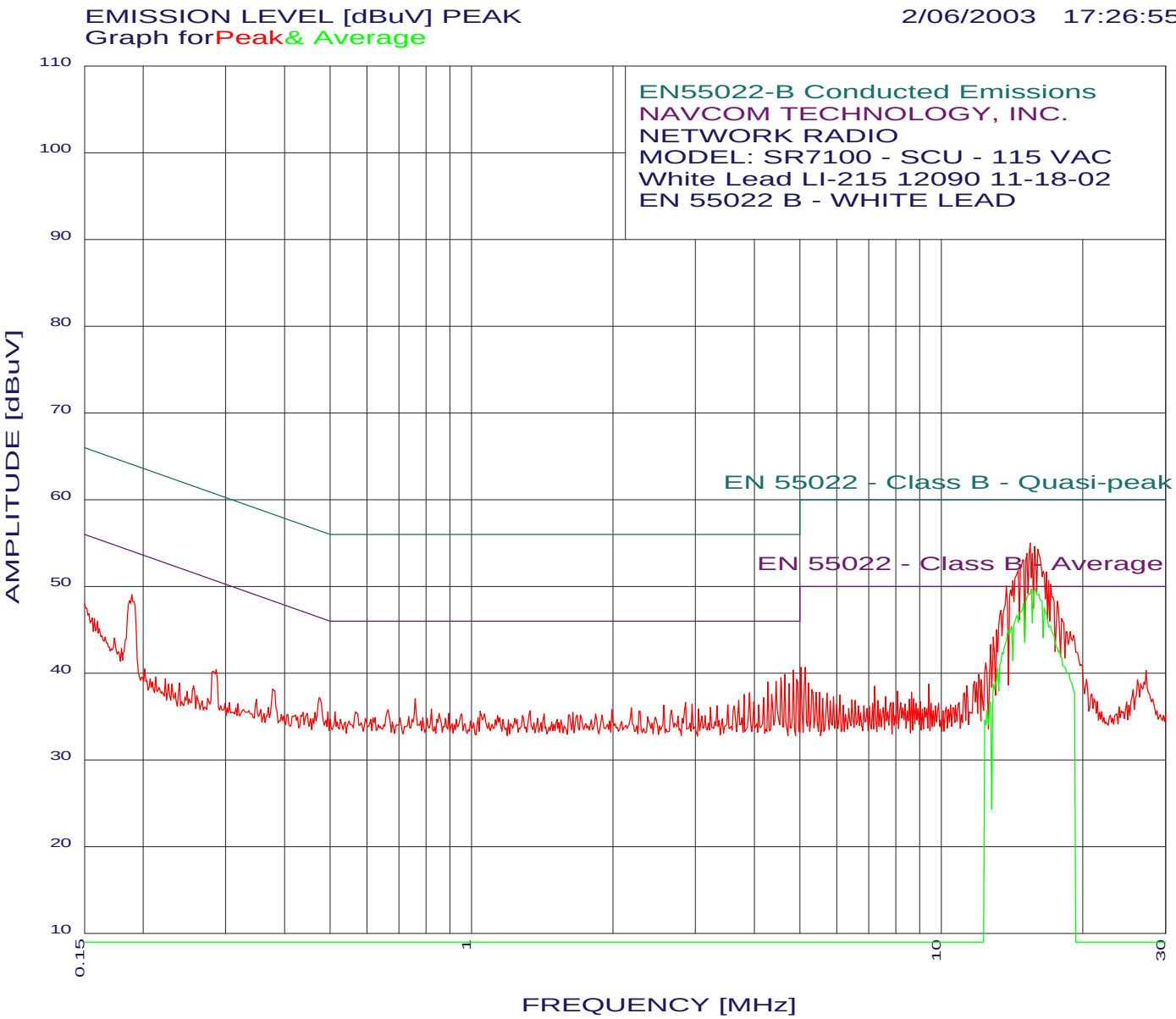
23 highest peaks above -50.00 dB of EN 55022 - Class B - Average limit line

Peak criteria : 0.10 dB, Curve : Average

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	16.143	46.73	50.00	-3.27
2	15.976	46.57	50.00	-3.43
3	15.727	46.56	50.00	-3.44
4	16.493	46.49	50.00	-3.51
5	0.150	51.07	56.00	-4.93
6	15.312	44.86	50.00	-5.14
7	17.027	44.39	50.00	-5.61
8	0.192	48.25	53.97	-5.73
9	0.185	48.44	54.24	-5.80
10	17.859	41.22	50.00	-8.78
11	14.370	41.08	50.00	-8.92
12	0.252	39.99	51.68	-11.69
13	0.283	39.01	50.72	-11.71
14	0.255	39.85	51.60	-11.75
15	0.381	35.14	48.25	-13.11
16	0.307	35.69	50.05	-14.37
17	0.312	35.30	49.92	-14.63
18	0.415	32.74	47.55	-14.81
19	0.322	34.71	49.66	-14.96
20	0.348	33.95	49.00	-15.05
21	0.360	33.24	48.73	-15.49
22	0.411	31.80	47.63	-15.83
23	0.398	31.94	47.90	-15.96



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Brea Division
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20621 Pascal Way
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NAVCOM TECHNOLOGY, INC.
NETWORK RADIO
MODEL: SR7100 - SCU - 115 VAC
EN 55022 B - WHITE LEAD
TEST ENGINEER : KYLE FUJIMOTO

30 highest peaks above -50.00 dB of EN 55022 - Class B - Average limit line

Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	15.478	54.98	50.00	4.98*
2	15.810	54.59	50.00	4.59*
3	16.059	54.30	50.00	4.30*
4	15.644	53.78	50.00	3.78*
5	15.229	53.77	50.00	3.77*
6	14.991	53.06	50.00	3.06*
7	14.603	51.84	50.00	1.84*
8	16.760	51.63	50.00	1.63*
9	16.938	50.64	50.00	0.64*
10	14.215	50.63	50.00	0.63*
11	17.116	50.24	50.00	0.24*
12	13.776	50.01	50.00	0.01*
13	17.669	48.27	50.00	-1.73*
14	13.414	47.19	50.00	-2.81*
15	18.050	46.28	50.00	-3.72*
16	0.189	49.05	54.06	-5.01
17	13.129	44.98	50.00	-5.02*
18	18.826	44.81	50.00	-5.19*
19	18.431	44.80	50.00	-5.20*
20	4.851	40.36	46.00	-5.64
21	12.926	44.17	50.00	-5.83
22	4.648	39.85	46.00	-6.15
23	4.552	39.45	46.00	-6.55
24	12.724	43.26	50.00	-6.74
25	4.928	39.26	46.00	-6.74
26	4.456	39.05	46.00	-6.95
27	4.272	38.94	46.00	-7.06
28	4.748	38.76	46.00	-7.24
29	0.150	47.97	56.00	-8.03
30	3.903	37.73	46.00	-8.27

* Please See the Average Readings on the Next Page and on the Plot

NAVCOM TECHNOLOGY, INC.
NETWORK RADIO
MODEL: SR7100 - SCU - 115 VAC
EN 55022 B - WHITE LEAD
TEST ENGINEER : KYLE FUJIMOTO

9 highest peaks above -50.00 dB of EN 55022 - Class B - Average limit line

Peak criteria : 1.00 dB, Curve : Average

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	15.893	49.75	50.00	-0.25
2	15.561	49.65	50.00	-0.35
3	14.991	48.04	50.00	-1.96
4	16.582	47.51	50.00	-2.49
5	14.138	45.36	50.00	-4.64
6	13.197	40.52	50.00	-9.48
7	12.656	36.70	50.00	-13.30
8	12.521	35.65	50.00	-14.35
9	0.150	0.00	56.00	-56.00

PEAK OUTPUT POWER

DATA SHEETS

PEAK OUTPUT POWER

NAVCOM TECHNOLOGY, INC.

NETWORK RADIO

MODEL: SR7100 - SCU

WITH STUB ANTENNA

CHANNEL	DATA RATE	PEAK POWER OUTPUT (dBm)
LOW	LOW	22.7
LOW	MIDDLE	26.2
LOW	HIGH	26.5
MIDDLE	LOW	21.3
MIDDLE	MIDDLE	24.7
MIDDLE	HIGH	26.3
HIGH	LOW	21.2
HIGH	MIDDLE	23.0
HIGH	HIGH	26.1

Note: Readings in **BOLD** indicate where the power had to be lowered from the Network Radio Model: SR7100 (Compatible Electronics Report Number: **B21122D1**) in order to meet the band edge requirements for the EUT.

PEAK OUTPUT POWER

NAVCOM TECHNOLOGY, INC.

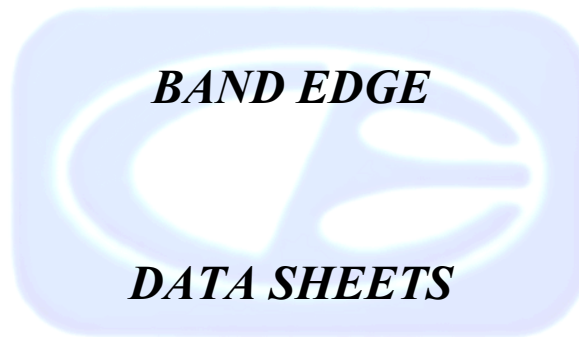
NETWORK RADIO

MODEL: SR7100 - SCU

WITH EXTERNAL ANTENNA

CHANNEL	DATA RATE	PEAK POWER OUTPUT (dBm)
LOW	LOW	22.7
LOW	MIDDLE	26.2
LOW	HIGH	26.5
MIDDLE	LOW	21.3
MIDDLE	MIDDLE	24.7
MIDDLE	HIGH	26.3
HIGH	LOW	20.0
HIGH	MIDDLE	23.0
HIGH	HIGH	26.1

Note: Readings in **BOLD** indicate where the power had to be lowered from the Network Radio Model: SR7100 (Compatible Electronics Report Number: **B21122D1**) in order to meet the band edge requirements for the EUT.



RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

COMPANY	NAVCOM TECHNOLOGY, INC.	DATE	2/13/03
EUT	NETWORK RADIO - BAND EDGE READINGS - WITH STUB ANTENNA	DUTY CYCLE	50 %
MODEL	SR7100 - SCU	PEAK TO AVG	-6.02059991 dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	KYLE FUJIMOTO	LAB	A

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
2483.5000	66.6	43.9 A	V	1.0	180		HIGH	32.3	4.5	31.3	0.0	0.0	49.4	-4.6	54.0	Video Average Only
2483.5000	66.3	37.9 A	V	1.0	180		HIGH	32.3	4.5	31.3	0.0	0.0	43.4	-10.6	54.0	After 50% Duty Cycle
																Lowest Data Rate
2483.5000	65.0	54.1 A	V	1.0	180		HIGH	32.3	4.5	31.3	0.0	0.0	59.6	5.6	54.0	Video Average Only
2483.5000	65.0	48.1 A	V	1.0	180		HIGH	32.3	4.5	31.3	0.0	0.0	53.6	-0.4	54.0	After 50% Duty Cycle
																Middle Data Rate
2483.5000	65.7	51.7 A	V	1.0	180		HIGH	32.3	4.5	31.3	0.0	0.0	57.2	3.2	54.0	Video Average Only
2483.5000	65.7	45.7 A	V	1.0	180		HIGH	32.3	4.5	31.3	0.0	0.0	51.2	-2.8	54.0	After 50% Duty Cycle
																Highest Data Rate
2390.0000	63.8	52.0 A	V	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	57.0	3.0	54.0	Video Average Only
2390.0000	63.8	46.0 A	V	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	51.0	-3.0	54.0	After 50% Duty Cycle
																Lowest Data Rate
2390.0000	62.0	50.8 A	V	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	55.8	1.8	54.0	Video Average Only
2390.0000	62.0	44.8 A	V	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	49.8	-4.2	54.0	After 50% Duty Cycle
																Middle Data Rate
2390.0000	67.4	54.3 A	V	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	59.3	5.3	54.0	Video Average Only
2390.0000	67.4	48.3 A	V	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	53.3	-0.7	54.0	After 50% Duty Cycle
																Highest Data Rate

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

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RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

COMPANY	NAVCOM TECHNOLOGY, INC.	DATE	2/13/03
EUT	NETWORK RADIO - BAND EDGE READINGS - WITH STUB ANTENNA	DUTY CYCLE	50 %
MODEL	SR7100	PEAK TO AVG	-6.02059991 dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	KYLE FUJIMOTO	LAB	A

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
2483.5000	54.7	41.3 A	H	1.0	270		HIGH	32.3	4.5	31.3	0.0	0.0	46.8	-7.2	54.0	Video Average Only
2483.5000	54.7	35.3 A	H	1.0	270		HIGH	32.3	4.5	31.3	0.0	0.0	40.8	-13.2	54.0	After 50% Duty Cycle
																Lowest Data Rate
2483.5000	60.2	48.0 A	H	1.0	0		HIGH	32.3	4.5	31.3	0.0	0.0	53.5	-0.5	54.0	Video Average Only
2483.5000	60.2	42.0 A	H	1.0	0		HIGH	32.3	4.5	31.3	0.0	0.0	47.5	-6.5	54.0	After 50% Duty Cycle
																Middle Data Rate
2483.5000	52.1	46.0 A	H	1.0	0		HIGH	32.3	4.5	31.3	0.0	0.0	51.5	-2.5	54.0	Video Average Only
2483.5000	52.1	40.0 A	H	1.0	0		HIGH	32.3	4.5	31.3	0.0	0.0	45.5	-8.5	54.0	After 50% Duty Cycle
																Highest Data Rate
2390.0000	51.8	42.0 A	H	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	47.0	-7.0	54.0	Video Average Only
2390.0000	51.8	36.0 A	H	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	41.0	-13.0	54.0	After 50% Duty Cycle
																Lowest Data Rate
2390.0000	51.6	43.0 A	H	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	48.0	-6.0	54.0	Video Average Only
2390.0000	51.6	37.0 A	H	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	42.0	-12.0	54.0	After 50% Duty Cycle
																Middle Data Rate
2390.0000	58.7	47.3 A	H	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	52.3	-1.7	54.0	Video Average Only
2390.0000	58.7	41.3 A	H	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	46.3	-7.7	54.0	After 50% Duty Cycle
																Highest Data Rate

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

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RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

COMPANY	NAVCOM TECHNOLOGY, INC.	DATE	2/6/03
EUT	NETWORK RADIO - BAND EDGE READINGS - WITH 5.5 dBi ANTENNA	DUTY CYCLE	50 %
MODEL	SR7100 - SCU	PEAK TO AVG	-6.02059991 dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	KYLE FUJIMOTO	LAB	A

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
2483.5000	67.0	50.0 A	V	1.0	180		HIGH	32.3	4.5	31.3	0.0	0.0	55.5	1.5	54.0	Video Average Only
2483.5000	67.0	44.0 A	V	1.0	180		HIGH	32.3	4.5	31.3	0.0	0.0	49.5	-4.5	54.0	After 50% Duty Cycle
																Lowest Data Rate
2483.5000	65.7	50.7 A	V	1.0	180		HIGH	32.3	4.5	31.3	0.0	0.0	56.2	2.2	54.0	Video Average Only
2483.5000	65.7	44.7 A	V	1.0	180		HIGH	32.3	4.5	31.3	0.0	0.0	50.2	-3.8	54.0	After 50% Duty Cycle
																Middle Data Rate
2483.5000	65.5	49.5 A	V	1.0	180		HIGH	32.3	4.5	31.3	0.0	0.0	55.0	1.0	54.0	Video Average Only
2483.5000	65.5	43.5 A	V	1.0	180		HIGH	32.3	4.5	31.3	0.0	0.0	49.0	-5.0	54.0	After 50% Duty Cycle
																Highest Data Rate
2390.0000	64.5	52.8 A	V	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	57.8	3.8	54.0	Video Average Only
2390.0000	64.5	46.8 A	V	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	51.8	-2.2	54.0	After 50% Duty Cycle
																Lowest Data Rate
2390.0000	65.6	45.7 A	V	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	50.7	-3.3	54.0	Video Average Only
2390.0000	65.6	39.7 A	V	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	44.7	-9.3	54.0	After 50% Duty Cycle
																Middle Data Rate
2390.0000	66.8	50.6 A	V	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	55.6	1.6	54.0	Video Average Only
2390.0000	66.8	44.6 A	V	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	49.6	-4.4	54.0	After 50% Duty Cycle
																Highest Data Rate

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

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RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

COMPANY	NAVCOM TECHNOLOGY, INC.	DATE	2/6/03
EUT	NETWORK RADIO - BAND EDGE READINGS - WITH 5.5 dBi ANTENNA	DUTY CYCLE	50 %
MODEL	SR7100 - SCU	PEAK TO AVG	-6.02059991 dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	KYLE FUJIMOTO	LAB	A

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
2483.5000	51.3	43.2 A	H	1.0	270		HIGH	32.3	4.5	31.3	0.0	0.0	48.7	-5.3	54.0	Video Average Only
2483.5000	51.3	37.2 A	H	1.0	270		HIGH	32.3	4.5	31.3	0.0	0.0	42.7	-11.3	54.0	After 50% Duty Cycle
																Lowest Data Rate
2483.5000	48.7	42.9 A	H	1.0	0		HIGH	32.3	4.5	31.3	0.0	0.0	48.4	-5.6	54.0	Video Average Only
2483.5000	48.7	32.9 A	H	1.0	0		HIGH	32.3	4.5	31.3	0.0	0.0	38.4	-15.6	54.0	After 50% Duty Cycle
																Middle Data Rate
2483.5000	56.7	46.2 A	H	1.0	0		HIGH	32.3	4.5	31.3	0.0	0.0	51.7	-2.3	54.0	Video Average Only
2483.5000	56.7	40.2 A	H	1.0	0		HIGH	32.3	4.5	31.3	0.0	0.0	45.7	-8.3	54.0	After 50% Duty Cycle
																Highest Data Rate
2390.0000	50.7	42.5 A	H	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	47.5	-6.5	54.0	Video Average Only
2390.0000	50.7	36.5 A	H	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	41.5	-12.5	54.0	After 50% Duty Cycle
																Lowest Data Rate
2390.0000	50.9	39.4 A	H	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	44.4	-9.6	54.0	Video Average Only
2390.0000	50.9	33.4 A	H	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	38.4	-15.6	54.0	After 50% Duty Cycle
																Middle Data Rate
2390.0000	53.2	44.0 A	H	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	49.0	-5.0	54.0	Video Average Only
2390.0000	53.2	38.0 A	H	1.0	180		LOW	32.3	4.4	31.7	0.0	0.0	43.0	-11.0	54.0	After 50% Duty Cycle
																Highest Data Rate

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

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