

*FCC PART 15, SUBPART C
TEST REPORT*

for

FM AUDIO TRANSMITTER
M/N: IPTRNSX
FCC ID: IKQIPTRNSX

Prepared for

SCOSCHE INDUSTRIES INC.
1550 PACIFIC AVENUE
OXNARD, CA 93033

Prepared by: _____

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DATE: MAY 5, 2006

	REPORT BODY	APPENDICES					TOTAL
		A	B	C	D	E	
PAGES	17	2	2	2	13	18	54

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GENERAL REPORT SUMMARY

This electromagnetic emission 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 in any form except in full, without the written permission of Compatible Electronics.

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

Device Tested: FM Audio Transmitter
Model Number: IPTRNSX
SN: None

Product Description: This is an FM Audio Transmitter.

Modifications: The EUT was not modified during the testing.

Manufacturer: Scosche Industries Inc.
1550 Pacific Avenue
Oxnard, CA 93033

Test Date: April 28, 2006

Test Specifications: EMI requirements
FCC CFR Title 47, Part 15 Subpart A, B and C sections 15.31 (e), 15.109, 15.205, 15.209 and 15.239
Test Procedure: ANSI C63.4: 2003.

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 150 kHz - 30 MHz.	This is a DC powered device that does not plug into AC Mains therefore this test was deemed unnecessary.
2	Radiated RF Emissions, 9 kHz – 1077 MHz.	Complies with the limits of FCC CFR Title 47, Part 15 Subpart C 15.205, 15.209 and 15.239 and the requirements of 15.31(e).

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the FM Audio Transmitter Model Number: IPTRNSX. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4: 2003. 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 specification limits defined in FCC CFR Title 47, Part 15 Subpart A (15.31e), Subpart B, 15.109 Subpart C 15.205, 15.209 and 15.239.

2. ADMINISTRATIVE DATA

2.1 Location of Testing

The EMI tests described herein were performed at the test facility of Compatible Electronics, 2337 Troutdale Drive, Agoura, California 91301.

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

Scosche Industries Inc.

Jack DeBiasio Project Manager

Compatible Electronics Inc.

Reynald O. Ramirez Sr. Test Engineer
Ruby A. Hall Lab Manager

2.4 Date Test Sample was Received

The test sample was received on April 28, 2006.

2.5 Disposition of the Test Sample

The test sample remains at Compatible Electronics Inc.

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 CFR Title 47, Part 15 Subpart C.	FCC Rules – Intentional Radiators.
CISPR 16 1993	Specification for radio disturbance and immunity measuring apparatus and methods.
ANSI C63.4 2003	Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz.

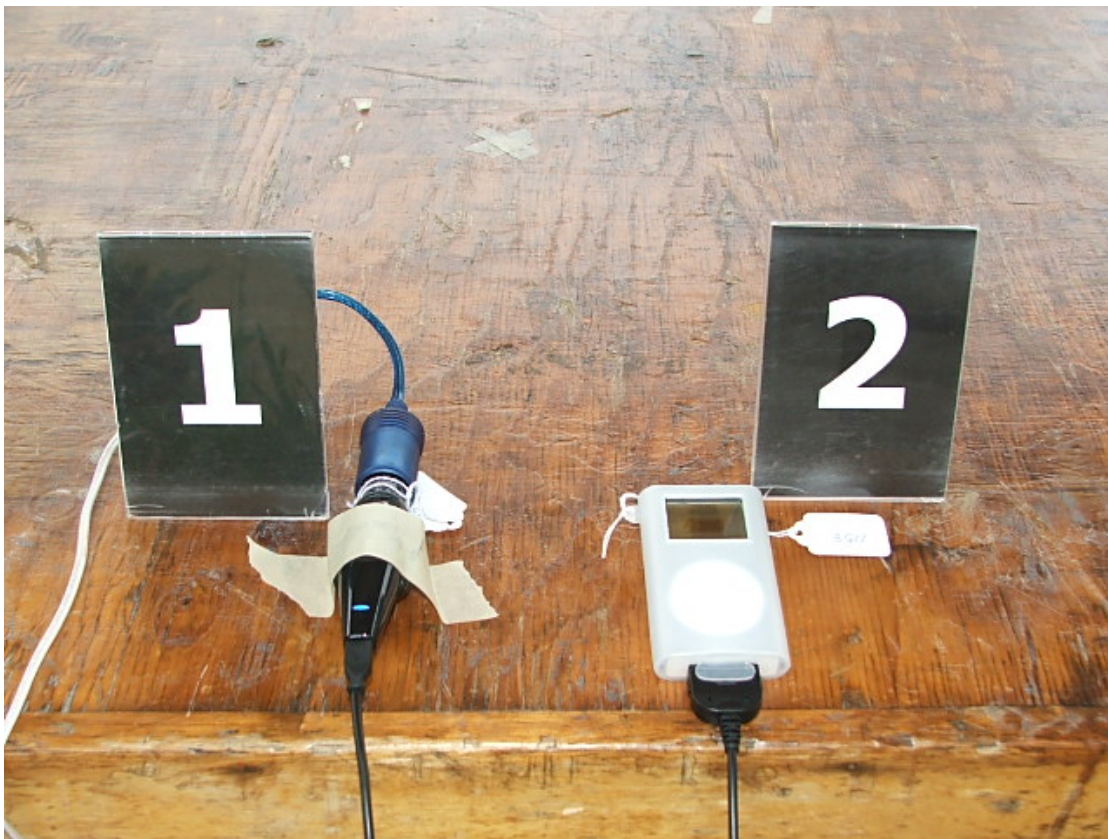
4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration - EMI

The EUT was set-up in a tabletop configuration. The EUT was connected to an iPod via the dock connector port. The input connector of the EUT allows the audio device, an iPod in this case, to be charged by the vehicle battery while connected. The volume on the iPod was set at its maximum level. The EUT was continuously transmitting in this mode throughout the test. The output was monitored through a radio which was located with the test equipment inside the lab. The EUT transmitting antenna is a fixed element; which connects directly to the PCB board.

The highest emissions were found when the EUT was running in the above configuration. The EUT was tested in X, Y and Z axis even though it is intended for use in a dashboard mounted cigarette lighter port. The cables were moved to maximize the emissions. The final radiated data was taken in this mode of operation. All initial investigations were performed with the spectrum analyzer in manual mode scanning the frequency range continuously. The cables were routed as shown in the photographs in Appendix D.

4.1.1 Photograph of Test Configuration - EMI



4.1.2 Cable Construction and Termination

Cable 1 This is a 1 meter unshielded round cable that connects the EUT to the iPod. The cable has a mini USB connector at the EUT end and has a 30 pin inline locking connector at the iPod end.

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

#	EQUIPMENT TYPE	MANUFACTURER	MODEL	SERIAL NUMBER
1	FM AUDIO TRANSMITTER (EUT)	SCOSCHE INDUSTRIES INC.	PN: IPTRNSX	S/N: NONE FCC ID: IKQIPTRNSX
2	I-POD	APPLE	A1051	S/N: 4U452WKMPFW

5.2 EMI Test Equipment

EQUIPMENT TYPE	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. DUE DATE
Spectrum Analyzer	Hewlett Packard	8566B	2729A04566	Jan. 10, 2006	Jan. 10, 2007
Quasi-Peak Adapter	Hewlett Packard	85650A	2521A00682	Jan. 10, 2006	Jan. 10, 2007
Preamplifier	Com Power	PA-103	0161068	Dec. 08, 2005	Dec. 08, 2006
Loop Antenna	Com Power	AL-130	17107	Jul. 28, 2005	Jul. 28, 2006
Biconical Antenna	Com Power	AB-100	01535	Dec. 29, 2005	Dec. 29, 2006
Log Periodic Antenna	Com Power	AL-100	01116	Dec. 28, 2005	Dec. 28, 2006
Horn Antenna	A.R.A.	DRG-118A	1015	Jul. 15, 2004	Jul. 15, 2006
Microwave Amplifier	Com Power	PA-122	181915	Mar. 22, 2006	Mar. 22, 2007
Antenna Mast	Com Power	AM-400	N/A	N/A	N/A
Turntable	Com Power	TTW-595	N/A	N/A	N/A
Computer	Hewlett Packard	Pavilion 4530	US91912022	N/A	N/A
Printer	Hewlett Packard	C6427B	MY066160TW	N/A	N/A
Radiated Emissions Test Software	Compatible Electronics	Vcap1A	2.3	N/A	N/A

6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to section 2.1 and 7.1.2 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. TEST PROCEDURES

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

7.1 RF Emissions

7.1.1 Conducted Emissions Test

The EUT is DC powered and does not connect to AC Mains therefore this test was deemed unnecessary.

The Spectrum Analyzer was used as a measuring meter along with the quasi-peak adapter. 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 Spectrum Analyzer offset was adjusted accordingly to read the actual data measured. The LISN output was read by the Spectrum Analyzer. The output of the second LISN was terminated by a 50 ohm termination. The effective measurement bandwidth used for the conducted emissions 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. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

The initial test data was taken in manual mode while scanning the frequency ranges of 150 kHz to 1.6 MHz, 1.6 MHz to 5 MHz and 5 MHz to 30 MHz. The conducted emissions from the EUT were maximized for operating mode as well as cable placement. Once a predominant frequency (within 12 dB of the limit) was found, it was more closely examined with the spectrum analyzer span adjusted to 1 MHz.

7.1.2 Radiated Emissions Test

The spectrum analyzer was used as a measuring meter along with a quasi-peak adapter. A Preamplifier was used to increase the sensitivity of the instrument. 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. This final reading is then recorded into the a Computer data recording program, which takes into account the cable loss, amplifier gain and antenna factors, so that a true reading is compared to the true limit. The quasi-peak was used only for those readings, which are marked accordingly on the data sheets. The effective measurement bandwidth used for the radiated emissions test was according to the frequency measured (200 Hz for 9kHz-150kHz, 9 kHz for 0.150kHz-30MHz and 120 kHz for 30-1000 MHz and 1 MHz for 1 GHz and above).

Broadband loop, biconical, log periodic and horn antennas were used as transducers during the measurement. The loop antenna was used from 9 kHz to 30 MHz, the biconical antenna was used from 30 MHz to 300 MHz, the log periodic antenna was used from 300 MHz to 1000 MHz and the horn antenna was used above 1 GHz. The final data was taken with a frequency span of 1 MHz. Furthermore, the frequency span was reduced during the preliminary investigations as deemed necessary.

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. 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. 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 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 test distance of 3 meters to obtain final test data. The final test data is located in Appendix E.

7.1.3 RF Emissions Test Results

The fundamental and up to the 10th harmonic emissions are within the specifications.

SCOSCHE INDUSTRIES INC.
FM Audio Transmitter

RADIATED EMISSIONS – SPURIOUS

The Frequency Band from 9 kHz to 1 GHz was specifically scanned. Please see data in Appendix E.

RADIATED EMISSION – BAND EDGE 15.239 (a)

The emission from the intentional radiator are confined within a band 200 kHz wide centered on the operating frequency. The 200 kHz band lies wholly within the frequency range of 88-108 MHz. See Appendix E for the plots.

7.1.4 Sample Calculations

A correction factor for the antenna, cable and a distance factor (if any) must be applied to the meter reading before a true field strength reading can be obtained. This Corrected Meter Reading is then compared to the specification limit in order to determine compliance with the limits.

The equation can be derived in the following manner:

Specification limit ($\mu\text{V}/\text{m}$) $\log \times 20$ = Specification Limit in dBuV

(Specification distance / test distance) $\log \times 40$ = distance factor

Note: When using an Active Antenna, the Antenna factor shall be subtracted due to the combination of the internal amplification and antenna loss. At lower frequencies the cable loss is negligible.

OR

Corrected Meter Reading = meter reading + F – A + C

where: F = antenna factor
A = amplifier gain
C = cable loss

The correction factors for the antenna and the amplifier gain are attached in Appendix D of this report. The data sheets are attached in Appendix E.

The distance factor D is 0 when the test is performed at the required specification distance.

8. TEST PROCEDURE DEVIATIONS

There were no deviations from the test procedures.

9. CONCLUSIONS

The FM Audio Transmitter Model Number: IPTRNSX meets all of the requirements of the FCC CFR, Title 47, Part 15 Subpart A, Section 15.31(e), Subpart B 15.109, Subpart C 15.205, 15.207, 15.209 and 15.239.

APPENDIX A

LABORATORY ACCREDITATIONS

LABORATORY ACCREDITATIONS AND RECOGNITIONS



For US, Canada, Australia/New Zealand, Taiwan and the European Union, Compatible Electronics is currently accredited by NVLAP to ISO/IEC 17025 an ISO 9002 equivalent. Please follow the link to the NIST site for each of our facilities NVLAP certificate and scope of accreditation.

Silverado/Lake Forest Division: <http://ts.nist.gov/ts/htdocs/210/214/scopes/2005270.htm>

Brea Division: <http://ts.nist.gov/ts/htdocs/210/214/scopes/2005280.htm>

Agoura Division: <http://ts.nist.gov/ts/htdocs/210/214/scopes/2000630.htm>



Compatible Electronics has been accredited by ANSI and appointed by the FCC to serve as a Telecommunications Certification Body (TCB). Compatible Electronics ANSI TCB listing can be found at: http://www.ansi.org/public/ca/ansi_cp.html



Compatible Electronics has been nominated as a Conformity Assessment Body (CAB) for EMC under the US/EU Mutual Recognition Agreement (MRA). Compatible Electronics NIST US/EU CAB listing can be found at: <http://ts.nist.gov/ts/htdocs/210/gsig/emc-cabs-mar02.pdf>



Compatible Electronics has been nominated as a Conformity Assessment Body (CAB) for Taiwan/BSMI under the US/APEC (Asia-Pacific Economic Cooperation) Mutual Recognition Agreement (MRA). Compatible Electronics NIST US/APEC CAB listing can be found at: <http://ts.nist.gov/ts/htdocs/210/gsig/apec/bsmi-cabs-may02.pdf>



Compatible Electronics has been validated by NEMKO against ISO/IEC 17025 under the NEMKO EMC Laboratory Authorization (ELA) program to all EN standards required by the European Union (EU) EMC Directive 89/336/EEC. Please follow the link to the Compatible Electronics' web site for each of our facilities NEMKO ELA certificate and scope of accreditation. <http://www.celectronics.com/certs.htm>

We are also certified/listed for IT products by the following country/agency:



Compatible Electronics VCCI listing can be found at: http://www.vcci.or.jp/vcci_e/member/tekigo/setsubi_index_id.html

Just type "Compatible Electronics" into the Keyword search box.



Compatible Electronics FCC listing can be found at: https://gullfoss2.fcc.gov/prod/oet/index_ie.html

Just type "Compatible Electronics" into the Test Firms search box.



Compatible Electronics IC listing can be found at: http://spectrum.ic.gc.ca/~cert/labs/oats_lab_c_e.html

APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

There were no modifications made to the EUT during the test.

APPENDIX C

ADDITIONAL MODELS COVERED UNDER THIS REPORT

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

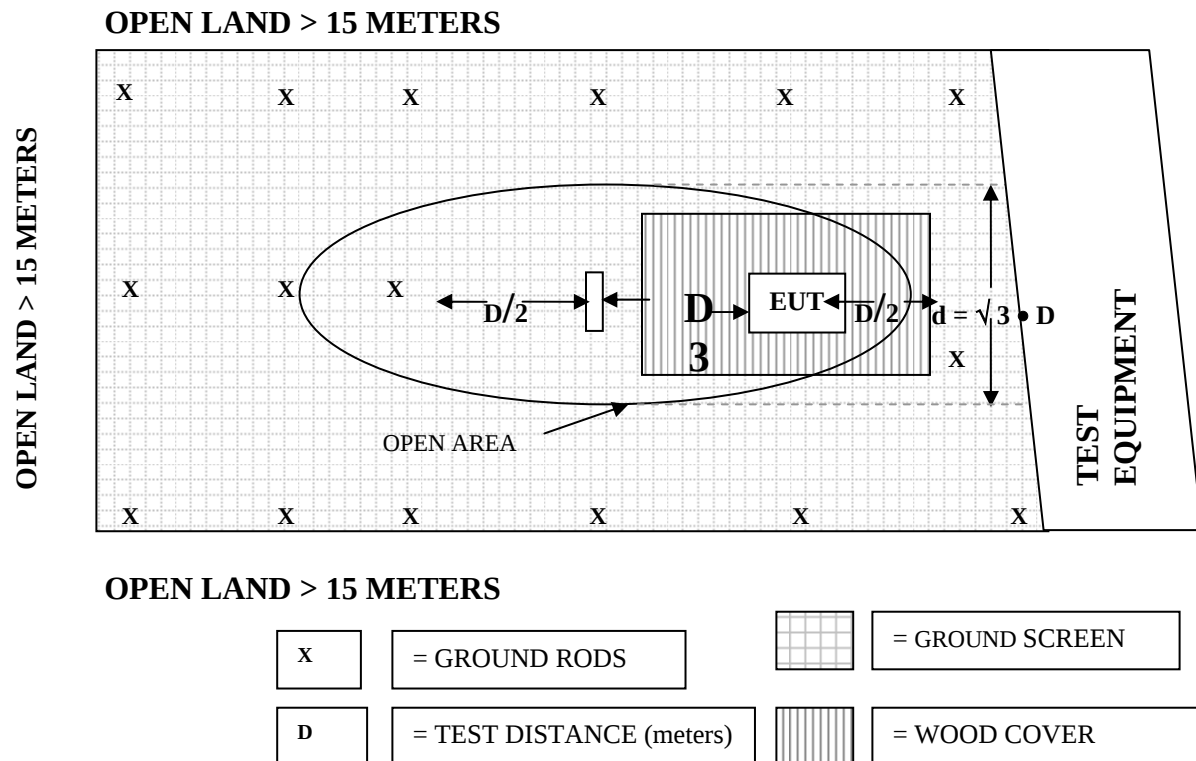
FM Audio Transmitter
M/N: IPTRNSX
S/N: None

There were no additional models covered under this report.

APPENDIX D

DIAGRAMS, CHARTS AND PHOTOS

FIGURE 1: PLOT MAP AND LAYOUT OF RADIATED SITE



COM-POWER AL-130
ACTIVE LOOP ANTENNA

S/N: 17107

CALIBRATION DATE: JULY 28, 2005

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
0.009	11.99	1	11.71
0.01	11.58	2	12.2
0.02	11.04	3	11.9
0.03	12.44	4	11.8
0.04	12.14	5	12.4
0.05	10.8	6	12.5
0.06	11.4	7	12.1
0.07	11.2	8	12.26
0.08	11.07	9	12.57
0.09	11.34	10	12.17
0.1	11.34	15	9.53
0.2	8.7	20	8.9
0.3	11.44	25	10.63
0.4	11.2	30	3.4
0.5	11.2		
0.6	11.67		
0.7	11.63		
0.8	11.63		
0.9	11.54		

COM-POWER AB-100
BICONICAL ANTENNA

S/N: 1535

CALIBRATION DATE: DEC. 29, 2005

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	14.03	120	11.07
35	12.77	125	11.17
40	12.02	140	12.25
45	12.80	150	12.75
50	11.84	160	13.26
55	11.08	175	14.14
60	10.16	180	14.22
65	9.56	200	15.45
70	9.11	225	15.76
80	8.47	250	17.09
90	8.42	275	17.63
100	8.73	300	20.04

COM-POWER AB-100
BICONICAL ANTENNA

S/N: 1535

CALIBRATION DATE: DEC. 29, 2005

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	14.03	120	11.07
35	12.77	125	11.17
40	12.02	140	12.25
45	12.80	150	12.75
50	11.84	160	13.26
55	11.08	175	14.14
60	10.16	180	14.22
65	9.56	200	15.45
70	9.11	225	15.76
80	8.47	250	17.09
90	8.42	275	17.63
100	8.73	300	20.04

COM-POWER PA-103

PREAMPLIFIER

S/N: 161068

CALIBRATION DATE: DEC. 8, 2005

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	32.7	300	32.1
40	32.5	350	32.0
50	32.4	400	32.1
60	32.5	450	31.8
70	32.5	500	31.4
80	32.4	550	32.0
90	32.4	600	31.6
100	32.3	650	31.4
125	32.4	700	31.5
150	32.2	750	32.1
175	32.4	800	31.0
200	32.2	850	31.3
225	32.4	900	31.5
250	32.3	950	31.2
275	32.1	1000	29.7

A.R.A DRG-118/A

HORN ANTENNA

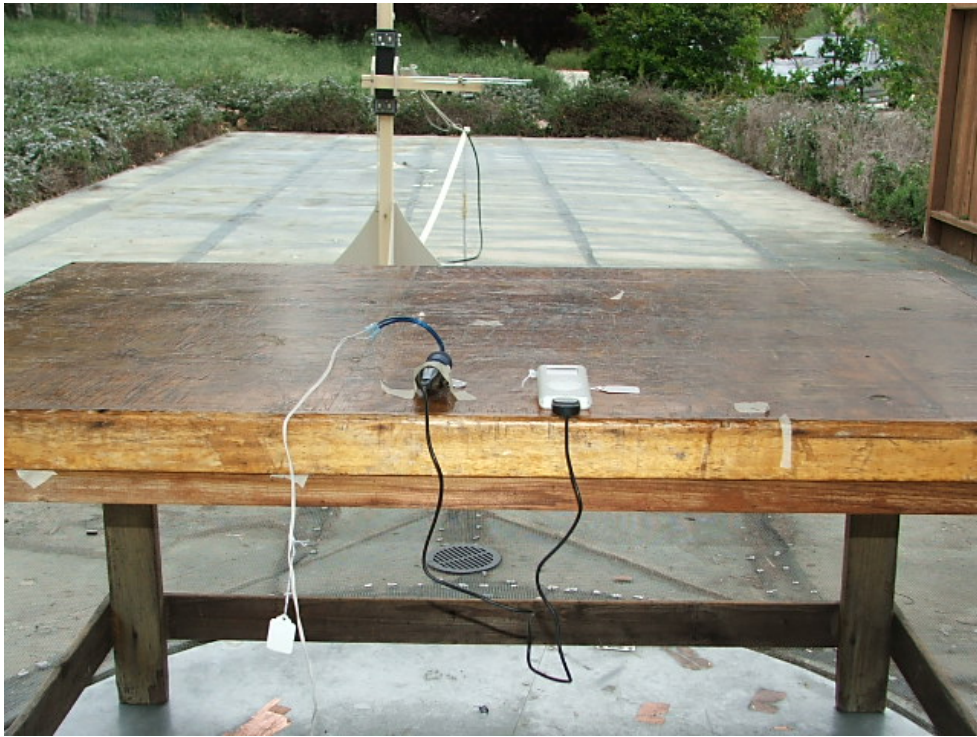
S/N: 1015

CALIBRATION DATE: JULY 15, 2004

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
1000	24.8	10000	39.0
1500	25.2	10500	39.8
2000	28.2	11000	39.3
2500	28.5	11500	40.1
3000	30.0	12000	41.0
3500	30.5	12500	40.6
4000	30.8	13000	39.9
4500	31.5	13500	40.5
5000	33.1	14000	41.3
5500	33.4	14500	42.7
6000	34.0	15000	41.6
6500	34.9	15500	39.2
7000	36.7	16000	39.0
7500	37.8	16500	38.8
8000	39.9	17000	41.1
8500	38.2	17500	43.8
9000	38.2	18000	45.4
9500	38.8		

COM-POWER PA-122**PREAMPLIFIER****S/N: 181915****CALIBRATION DATE: MARCH 22, 2006**

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
1000	31.9	7000	27.5
1100	31.7	7500	29.1
1200	31.5	8000	29.6
1300	31.5	8500	28.6
1400	31.3	9000	25.2
1500	31.5	9500	28.8
1600	31.1	10000	25.6
1700	31.3	11000	21.7
1800	31.3	12000	28.2
1900	31.7	13000	27.2
2000	31.0	14000	27.2
2500	30.6	15000	25.3
3000	30.8	16000	23.3
3500	31.1	17000	24.4
4000	29.3	18000	28.5
4500	30.8		
5000	30.2		
5500	30.4		
6000	29.1		
6500	28.6		

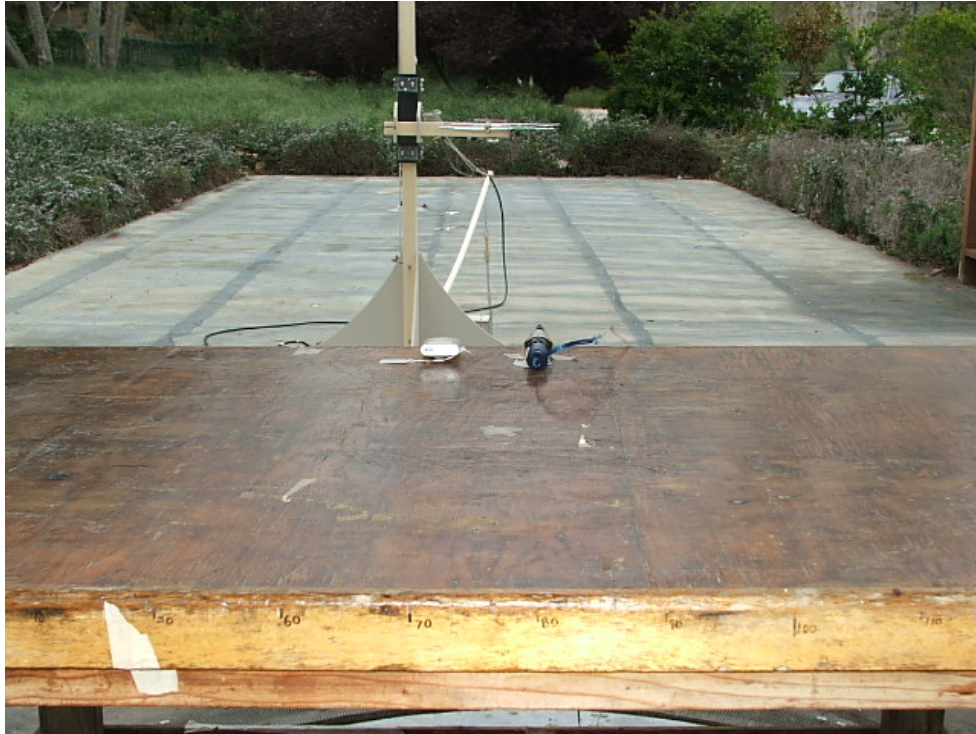


FRONT VIEW

SCOSCHE INDUSTRIES INC.
FM AUDIO TRANSMITTER
MODEL: IPTRNSX

FCC PART 15 SUBPART C - RADIATED EMISSIONS – 4-28-06

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



REAR VIEW

SCOSCHE INDUSTRIES INC.

FM AUDIO TRANSMITTER

MODEL: IPTRNSX

FCC PART 15 SUBPART C - RADIATED EMISSIONS – 4-28-06

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

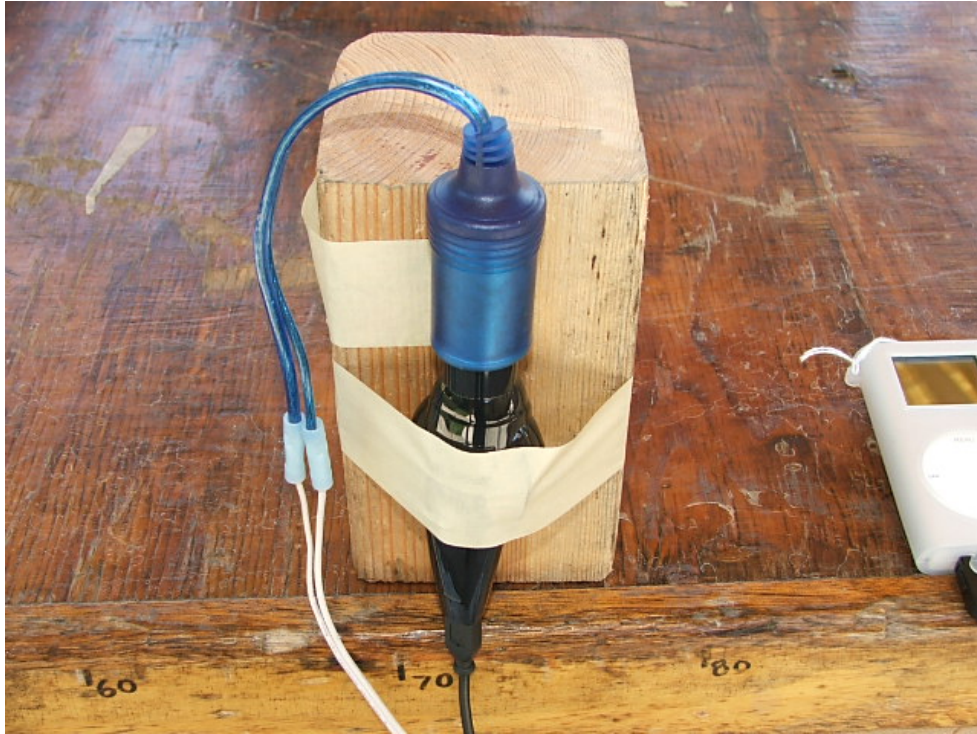


X AXIS

SCOSCHE INDUSTRIES INC.
FM AUDIO TRANSMITTER
MODEL: IPTRNSX

FCC PART 15 SUBPART C - RADIATED EMISSIONS – 4-28-06

PHOTOGRAPH SHOWING THE EUT CONFIGURATION



Y AXIS

SCOSCHE INDUSTRIES INC.
FM AUDIO TRANSMITTER
MODEL: IPTRNSX

FCC PART 15 SUBPART C - RADIATED EMISSIONS – 4-28-06

PHOTOGRAPH SHOWING THE EUT CONFIGURATION



Z AXIS

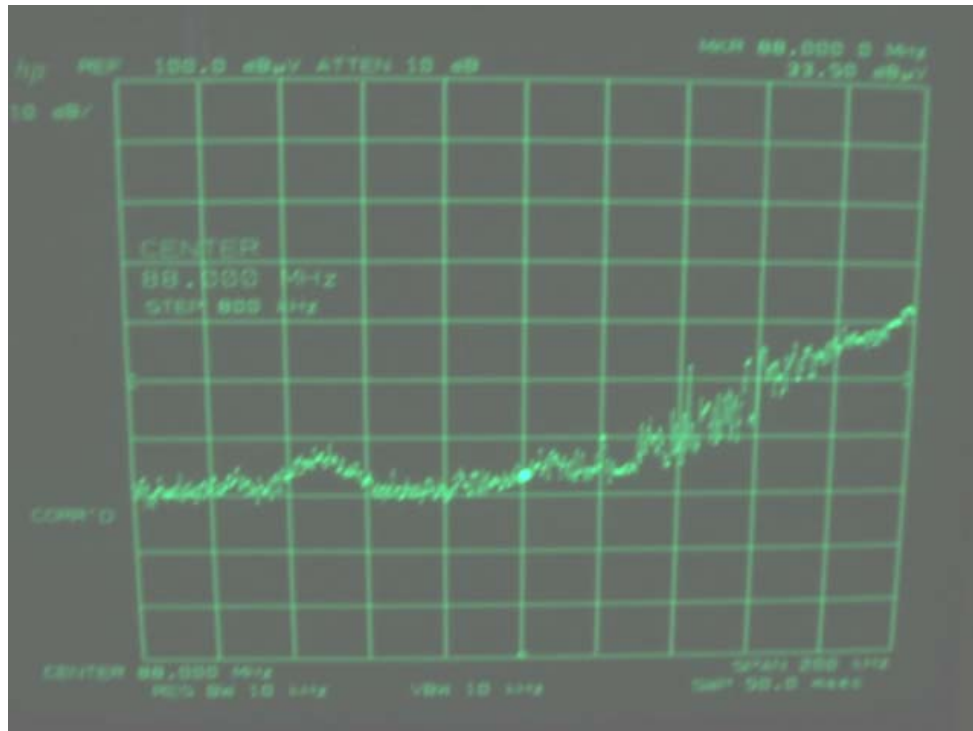
SCOSCHE INDUSTRIES INC.
FM AUDIO TRANSMITTER
MODEL: IPTRNSX

FCC PART 15 SUBPART C - RADIATED EMISSIONS – 4-28-06

PHOTOGRAPH SHOWING THE EUT CONFIGURATION

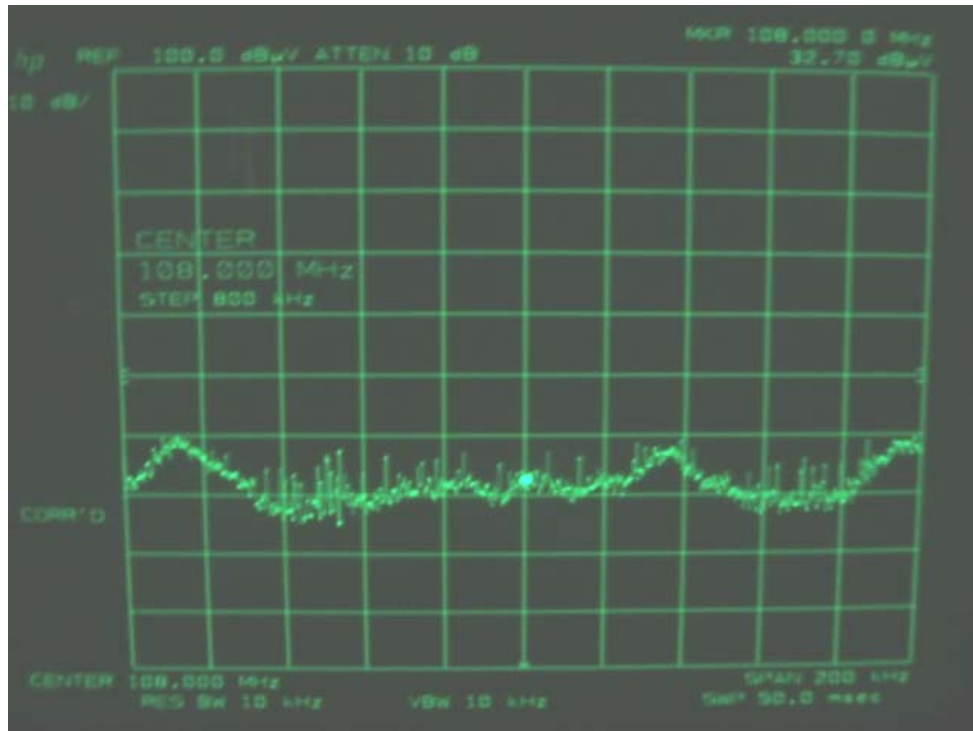
APPENDIX E

DATA SHEETS



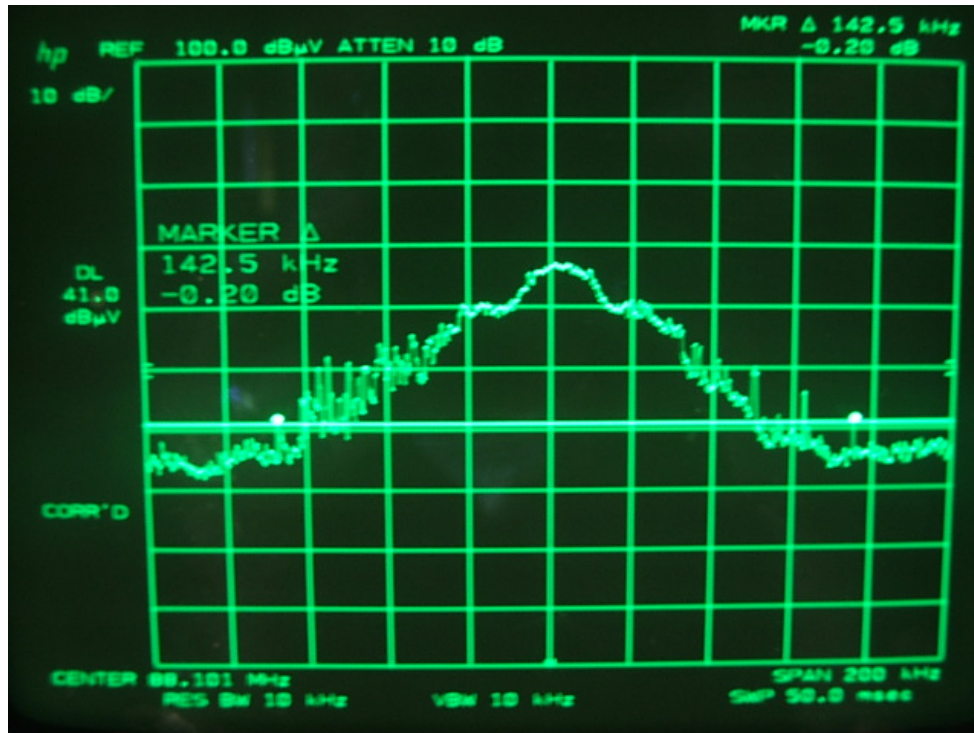
SCOSCHE INDUSTRIES INC.
FM AUDIO TRANSMITTER
MODEL: IPTRNSX
FCC PART 15 SUBPART C – BAND EDGE 88 MHz

PHOTOGRAPH SHOWING THE LOWER BAND EDGE



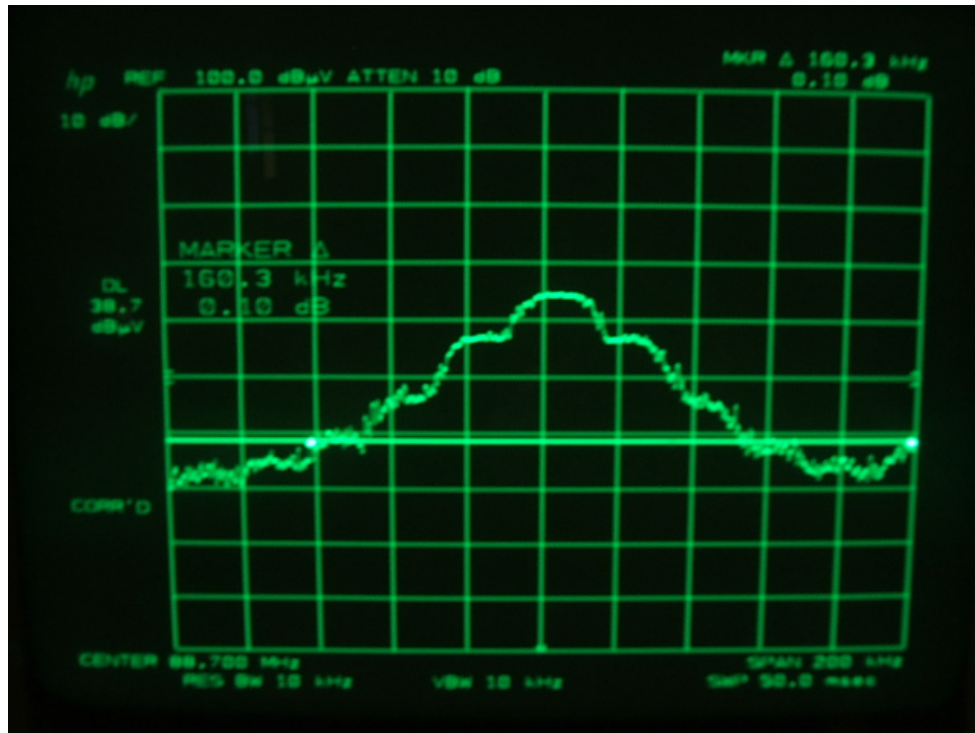
SCOSCHE INDUSTRIES INC.
FM AUDIO TRANSMITTER
MODEL: IPTRNSX
FCC PART 15 SUBPART C – BAND EDGE 108 MHz

PHOTOGRAPH SHOWING THE UPPER BAND EDGE



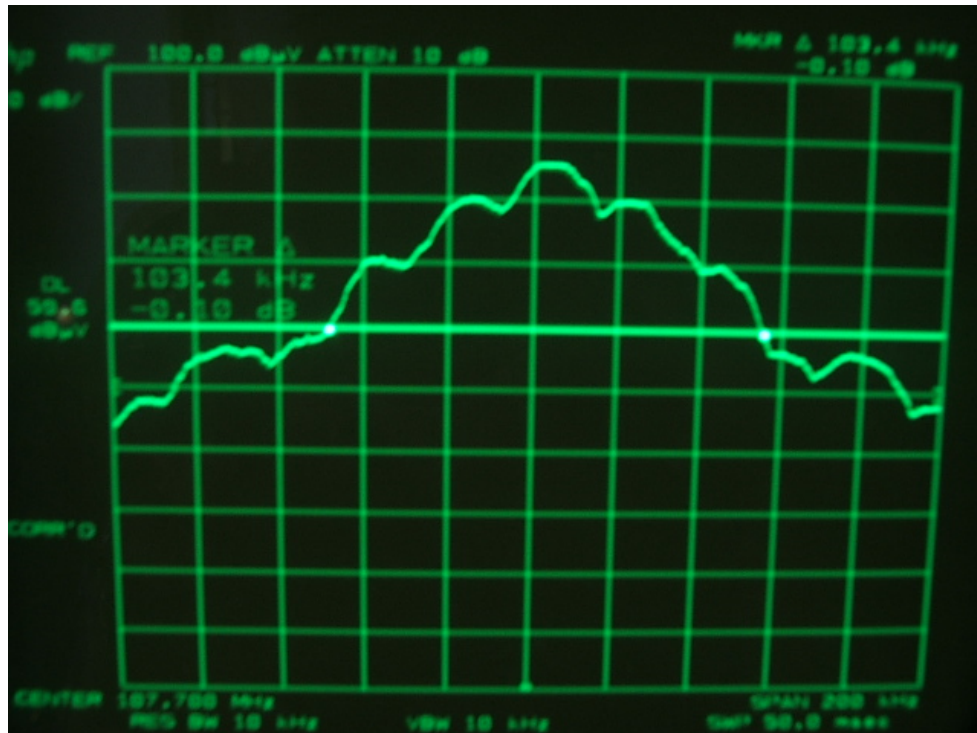
SCOSCHE INDUSTRIES INC.
FM AUDIO TRANSMITTER
MODEL: IPTRNSX
FCC PART 15 SUBPART C – 15.239 (a)

**PHOTOGRAPH SHOWING THE LOW CHANNEL
88.1 MHz 142.5 kHz**



SCOSCHE INDUSTRIES INC.
FM AUDIO TRANSMITTER
MODEL: IPTRNSX
FCC PART 15 SUBPART C – 15.239 (a)

**PHOTOGRAPH SHOWING THE MID CHANNEL
88.7 MHz 160.6 kHz**



SCOSCHE INDUSTRIES INC.
FM AUDIO TRANSMITTER
MODEL: IPTRNSX
FCC PART 15 SUBPART C – 15.239 (a)

**PHOTOGRAPH SHOWING THE UPPER CHANNEL
107.7 MHz 103.4 kHz**

COMPATIBLE ELECTRONICS

Test Location : Compatible Electronics
Customer :
Manufacturer : Scosche Industries Inc.
Eut name : FM Transmitter
Model : IPTRNSX
Serial # :
Specification : FCC Pt. 15- Class B
Distance correction factor ($20 * \log(\text{test}/\text{spec})$) : 0.00
Test Mode : Qualification
Bandedge 88MHz.
R. Ramirez

Page : 1/1
Date : 04/28/2006
Time : 03:35:48 PM
Lab : F
Test Distance : 3.00 Meters

Pol	Freq MHz	Reading dBuV	Cable loss dB	Antenna factor dB	Amplifier gain dB	Corr'd rdg = R dBuV/m	Limit = L dBuV/m	Delta R-L dB
1V	88.000	33.50	2.98	8.43	32.40	12.51	40.00	-27.49
2V	108.000	32.70	3.13	9.72	32.33	13.22	43.50	-30.28

COMPATIBLE ELECTRONICS

Test Location : Compatible Electronics **Page** : 1/1
Customer : **Date** : 04/28/2006
Manufacturer : Scosche Industries Inc. **Time** : 03:51:56 PM
Eut name : FM Transmitter **Lab** : F
Model : IPTRNSX **Test Distance** : 3.00 Meters
Serial # :
Specification : FCC Pt. 15- Class B
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : Qualification
 Spurious Emissions 7.6MHz. clock
 R. Ramirez
 Note: EUT was tested from 9kHz with a loop antenna, no emissions found.

Pol	Freq MHz	Reading dBuV	Cable loss dB	Antenna factor dB	Amplifier gain dB	Corr'd rdg = R dBuV/m	Limit = L dBuV/m	Delta R-L dB
1V	30.400	38.10	2.20	13.92	32.69	21.54	40.00	-18.46
2V	45.600	53.20	2.36	12.68	32.44	35.80	40.00	-4.20
3V	60.822	50.70	2.61	10.06	32.50	30.87	40.00	-9.13
4V	76.022	50.30	2.82	8.71	32.44	29.40	40.00	-10.60
5V	114.034	41.10	3.16	10.42	32.36	22.32	43.50	-21.18
6V	258.400	34.50	4.56	17.28	32.23	24.11	46.00	-21.89
7H	30.400	37.10	2.20	13.92	32.69	20.54	40.00	-19.46
8H	45.600	39.00	2.36	12.68	32.44	21.60	40.00	-18.40
9H	60.831	45.30	2.61	10.06	32.50	25.47	40.00	-14.53
10H	76.025	42.20	2.82	8.71	32.44	21.30	40.00	-18.70
11H	114.038	40.20	3.16	10.42	32.36	21.42	43.50	-22.08
12H	258.403	36.90	4.56	17.28	32.23	26.51	46.00	-19.49
13V	311.603	35.50	4.65	16.75	32.08	24.82	46.00	-21.18
14V	425.603	33.50	5.67	15.51	31.94	22.74	46.00	-23.26
15V	463.603	34.40	5.97	16.01	31.69	24.69	46.00	-21.31
16V	653.603	34.40	7.93	17.52	31.41	28.44	46.00	-17.56
17V	737.203	34.20	7.02	21.06	31.95	30.34	46.00	-15.66
18V	889.203	35.30	8.22	22.00	31.46	34.06	46.00	-11.94
19H	311.615	35.30	4.65	16.75	32.08	24.63	46.00	-21.37
20H	425.618	35.70	5.67	15.51	31.94	24.94	46.00	-21.06
21H	463.658	36.10	5.97	16.01	31.69	26.40	46.00	-19.60
22H	653.058	36.50	7.94	17.49	31.41	30.53	46.00	-15.47
23H	737.232	33.40	7.02	21.07	31.95	29.54	46.00	-16.46
24H	889.231	34.60	8.22	22.00	31.46	33.35	46.00	-12.65

RADIATED EMISSIONS (FCC SECTION 15.239)

COMPANY	Scosche Industries	DATE	4/28/06
EUT	FM Transmitter	DUTY CYCLE	N/A %
MODEL	IPTRNSX	PEAK TO AVG	N/A dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	R. Ramirez	LAB	F

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
88.1000	36.0	30.4	A	H	4.0	0	X	LOW	8.4	3.0	0.0	0.0	41.8	-6.2	48.0	
88.1000	33.1		A	H	4.0	0	Y	LOW	8.4	3.0	0.0	0.0	44.5	-3.5	48.0	
88.1000	34.7	27.0	A	H	4.0	0	Z	LOW	8.4	3.0	0.0	0.0	38.4	-9.6	48.0	
88.1000	36.3	29.6	A	V	1.0	0	X	LOW	8.4	3.0	0.0	0.0	41.0	-7.0	48.0	
88.1000	38.1	32.9	A	V	1.0	0	Y	LOW	8.4	3.0	0.0	0.0	44.3	-3.7	48.0	
88.1000	38.6	33.3	A	V	1.0	0	Z	LOW	8.4	3.0	0.0	0.0	44.7	-3.3	48.0	
88.7000	31.9		A	H	4.0	0	X	MED.	8.4	3.0	0.0	0.0	43.3	-4.7	48.0	
88.7000	34.7	27.3	A	H	4.0	0	Y	MED.	8.4	3.0	0.0	0.0	38.7	-9.3	48.0	
88.7000	35.4	25.9	A	H	3.0	0	Z	MED.	8.4	3.0	0.0	0.0	37.3	-10.7	48.0	
88.7000	37.7	32.4	A	V	1.0	0	X	MED.	8.4	3.0	0.0	0.0	43.9	-4.1	48.0	
88.7000	36.3	30.8	A	V	1.0	0	Y	MED.	8.4	3.0	0.0	0.0	42.2	-5.8	48.0	
88.7000	36.7	34.4	A	V	1.0	0	Z	MED.	8.4	3.0	0.0	0.0	45.8	-2.2	48.0	
107.7000	31.7		A	H	4.0	0	X	HIGH	9.6	3.1	0.0	0.0	44.5	-3.5	48.0	
107.7000	33.6	25.0	A	H	4.0	0	Y	HIGH	9.6	3.1	0.0	0.0	37.8	-10.2	48.0	
107.7000	33.2	23.6	A	H	4.0	0	Z	HIGH	9.6	3.1	0.0	0.0	36.4	-11.6	48.0	
107.7000	34.9	25.2	A	V	1.0	0	X	HIGH	9.6	3.1	0.0	0.0	37.9	-10.1	48.0	
107.7000	35.7	26.8	A	V	1.0	0	Y	HIGH	9.6	3.1	0.0	0.0	39.6	-8.4	48.0	
107.7000	35.0	27.0	A	V	1.0	0	Z	HIGH	9.6	3.1	0.0	0.0	39.8	-8.2	48.0	

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

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RADIATED EMISSIONS (FCC SECTION 15.239)

COMPANY	Scosche Industries	DATE	4/28/06
EUT	FM Transmitter	DUTY CYCLE	N/A %
MODEL	IPTRNSX	PEAK TO AVG	N/A dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	R. Ramirez	LAB	F

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
176.2000	32.2	A	H	4.0	0	X	LOW	14.2	3.4	32.4		0.0	17.4	-26.1	43.5	
176.2000	30.0	A	H	4.0	0	Y	LOW	14.2	3.4	32.4		0.0	15.2	-28.3	43.5	
176.2000	33.0	A	H	4.0	0	Z	LOW	14.2	3.4	32.4		0.0	18.2	-25.3	43.5	
176.2000	30.7	A	V	1.0	0	X	LOW	14.2	3.4	32.4		0.0	15.9	-27.6	43.5	
176.2000	31.6	A	V	1.0	0	Y	LOW	14.2	3.4	32.4		0.0	16.8	-26.7	43.5	
176.2000	32.6	A	V	1.0	0	Z	LOW	14.2	3.4	32.4		0.0	17.8	-25.7	43.5	
177.4000	31.5	A	H	4.0	0	X	MED.	14.2	3.5	32.4	0.0	0.0	16.8	-26.7	43.5	
177.4000	32.0	A	H	4.0	0	Y	MED.	14.2	3.5	32.4		0.0	17.3	-26.2	43.5	
177.4000	31.8	A	H	4.0	0	Z	MED.	14.2	3.5	32.4		0.0	17.1	-26.4	43.5	
177.4000	32.1	A	V	1.0	0	X	MED.	14.2	3.5	32.4		0.0	17.4	-26.1	43.5	
177.4000	31.7	A	V	1.0	0	Y	MED.	14.2	3.5	32.4		0.0	17.0	-26.5	43.5	
177.4000	31.5	A	V	1.0	0	Z	MED.	14.2	3.5	32.4		0.0	16.8	-26.7	43.5	
215.4000	31.0	A	H	4.0	0	X	HIGH	16.0	3.9	32.3	0.0	0.0	18.6	-24.9	43.5	
215.4000	31.2	A	H	4.0	0	Y	HIGH	16.0	3.9	32.3	0.0	0.0	18.8	-24.7	43.5	
215.4000	31.9	A	H	4.0	0	Z	HIGH	16.0	3.9	32.3	0.0	0.0	19.5	-24.0	43.5	
215.4000	30.8	A	V	1.0	0	X	HIGH	16.0	3.9	32.3	0.0	0.0	18.4	-25.1	43.5	
215.4000	31.4	A	V	1.0	0	Y	HIGH	16.0	3.9	32.3	0.0	0.0	19.0	-24.5	43.5	
215.4000	31.6	A	V	1.0	0	Z	HIGH	16.0	3.9	32.3	0.0	0.0	19.2	-24.3	43.5	

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

** DELTA = SPEC LIMIT - CORRECTED READING

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RADIATED EMISSIONS (FCC SECTION 15.239)

COMPANY	Scosche Industries	DATE	4/28/06
EUT	FM Transmitter	DUTY CYCLE	N/A %
MODEL	IPTRNSX	PEAK TO AVG	N/A dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	R. Ramirez	LAB	F

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
264.3000		A	H			X	LOW	17.9	4.5	32.2	0.0				46.0	No Readings Found
264.3000		A	H			Y	LOW	17.9	4.5	32.2	0.0				46.0	
264.3000		A	H			Z	LOW	17.9	4.5	32.2	0.0				46.0	
264.3000		A	V			X	LOW	17.9	4.5	32.2	0.0				46.0	
264.3000		A	V			Y	LOW	17.9	4.5	32.2	0.0				46.0	
264.3000		A	V			Z	LOW	17.9	4.5	32.2	0.0				46.0	
266.1000		QP	H			X	MED.	18.0	4.4	32.2	0.0				46.0	
266.1000		QP	H			Y	MED.	18.0	4.4	32.2	0.0				46.0	
266.1000		QP	H			Z	MED.	18.0	4.4	32.2	0.0				46.0	
266.1000		QP	V			X	MED.	18.0	4.4	32.2	0.0				46.0	
266.1000		QP	V			Y	MED.	18.0	4.4	32.2	0.0				46.0	
266.1000		QP	V			Z	MED.	18.0	4.4	32.2	0.0				46.0	
323.1000		QP	H			X	HIGH	15.6	4.7	32.1	0.0				46.0	
323.1000		QP	H			Y	HIGH	15.6	4.7	32.1	0.0				46.0	
323.1000		QP	H			Z	HIGH	15.6	4.7	32.1	0.0				46.0	
323.1000		QP	V			X	HIGH	15.6	4.7	32.1	0.0				46.0	
323.1000		QP	V			Y	HIGH	15.6	4.7	32.1	0.0				46.0	
323.1000		QP	V			Z	HIGH	15.6	4.7	32.1	0.0				46.0	

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

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RADIATED EMISSIONS (FCC SECTION 15.239)

COMPANY	Scosche Industries	DATE	4/28/06
EUT	FM Transmitter	DUTY CYCLE	N/A %
MODEL	IPTRNSX	PEAK TO AVG	N/A dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	R. Ramirez	LAB	F

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
352.4000		A	H			X	LOW	16.3	4.8	32.0	0.0				46.0	No Readings Found
352.4000		A	H			Y	LOW	16.3	4.8	32.0	0.0				46.0	
352.4000		A	H			Z	LOW	16.3	4.8	32.0	0.0				46.0	
352.4000		A	V			X	LOW	16.3	4.8	32.0	0.0				46.0	
352.4000		A	V			Y	LOW	16.3	4.8	32.0	0.0				46.0	
352.4000		A	V			Z	LOW	16.3	4.8	32.0	0.0				46.0	
354.8000		QP	H			X	MED.	16.2	4.8	32.0	0.0				46.0	
354.8000		QP	H			Y	MED.	16.2	4.8	32.0	0.0				46.0	
354.8000		QP	H			Z	MED.	16.2	4.8	32.0	0.0				46.0	
354.8000		QP	V			X	MED.	16.2	4.8	32.0	0.0				46.0	
354.8000		QP	V			Y	MED.	16.2	4.8	32.0	0.0				46.0	
354.8000		QP	V			Z	MED.	16.2	4.8	32.0	0.0				46.0	
430.8000		QP	H			X	HIGH	14.9	5.7	31.9	0.0				46.0	
430.8000		QP	H			Y	HIGH	14.9	5.7	31.9	0.0				46.0	
430.8000		QP	H			Z	HIGH	14.9	5.7	31.9	0.0				46.0	
430.8000		QP	V			X	HIGH	14.9	5.7	31.9	0.0				46.0	
430.8000		QP	V			Y	HIGH	14.9	5.7	31.9	0.0				46.0	
430.8000		QP	V			Z	HIGH	14.9	5.7	31.9	0.0				46.0	

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

** DELTA = SPEC LIMIT - CORRECTED READING

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RADIATED EMISSIONS (FCC SECTION 15.239)

COMPANY	Scosche Industries	DATE	4/28/06
EUT	FM Transmitter	DUTY CYCLE	N/A %
MODEL	IPTRNSX	PEAK TO AVG	N/A dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	R. Ramirez	LAB	F

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
440.5000		A	H			X	LOW	15.2	5.9	31.9	0.0				46.0	No Readings Found
440.5000		A	H			Y	LOW	15.2	5.9	31.9	0.0				46.0	
440.5000		A	H			Z	LOW	15.2	5.9	31.9	0.0				46.0	
440.5000		A	V			X	LOW	15.2	5.9	31.9	0.0				46.0	
440.5000		A	V			Y	LOW	15.2	5.9	31.9	0.0				46.0	
440.5000		A	V			Z	LOW	15.2	5.9	31.9	0.0				46.0	
443.5000		QP	H			X	MED.	15.3	5.9	31.8	0.0				46.0	
443.5000		QP	H			Y	MED.	15.3	5.9	31.8	0.0				46.0	
443.5000		QP	H			Z	MED.	15.3	5.9	31.8	0.0				46.0	
443.5000		QP	V			X	MED.	15.3	5.9	31.8	0.0				46.0	
443.5000		QP	V			Y	MED.	15.3	5.9	31.8	0.0				46.0	
443.5000		QP	V			Z	MED.	15.3	5.9	31.8	0.0				46.0	
538.5000		QP	H			X	HIGH	15.7	5.5	31.9	0.0				46.0	
538.5000		QP	H			Y	HIGH	15.7	5.5	31.9	0.0				46.0	
538.5000		QP	H			Z	HIGH	15.7	5.5	31.9	0.0				46.0	
538.5000		QP	V			X	HIGH	15.7	5.5	31.9	0.0				46.0	
538.5000		QP	V			Y	HIGH	15.7	5.5	31.9	0.0				46.0	
538.5000		QP	V			Z	HIGH	15.7	5.5	31.9	0.0				46.0	

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

** DELTA = SPEC LIMIT - CORRECTED READING

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RADIATED EMISSIONS (FCC SECTION 15.239)

COMPANY	Scosche Industries	DATE	4/28/06
EUT	FM Transmitter	DUTY CYCLE	N/A %
MODEL	IPTRNSX	PEAK TO AVG	N/A dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	R. Ramirez	LAB	F

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
528.6000		A	H			X	LOW	16.1	5.6	31.7	0.0				46.0	No Readings Found
528.6000		A	H			Y	LOW	16.1	5.6	31.7	0.0				46.0	
528.6000		A	H			Z	LOW	16.1	5.6	31.7	0.0				46.0	
528.6000		A	V			X	LOW	16.1	5.6	31.7	0.0				46.0	
528.6000		A	V			Y	LOW	16.1	5.6	31.7	0.0				46.0	
528.6000		A	V			Z	LOW	16.1	5.6	31.7	0.0				46.0	
532.2000		QP	H			X	MED.	16.0	5.6	31.8	0.0				46.0	
532.2000		QP	H			Y	MED.	16.0	5.6	31.8	0.0				46.0	
532.2000		QP	H			Z	MED.	16.0	5.6	31.8	0.0				46.0	
532.2000		QP	V			X	MED.	16.0	5.6	31.8	0.0				46.0	
532.2000		QP	V			Y	MED.	16.0	5.6	31.8	0.0				46.0	
532.2000		QP	V			Z	MED.	16.0	5.6	31.8	0.0				46.0	
646.2000		QP	H			X	HIGH	17.4	7.9	31.4	0.0				46.0	
646.2000		QP	H			Y	HIGH	17.4	7.9	31.4	0.0				46.0	
646.2000		QP	H			Z	HIGH	17.4	7.9	31.4	0.0				46.0	
646.2000		QP	V			X	HIGH	17.4	7.9	31.4	0.0				46.0	
646.2000		QP	V			Y	HIGH	17.4	7.9	31.4	0.0				46.0	
646.2000		QP	V			Z	HIGH	17.4	7.9	31.4	0.0				46.0	

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

** DELTA = SPEC LIMIT - CORRECTED READING

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RADIATED EMISSIONS (FCC SECTION 15.239)

COMPANY	Scosche Industries	DATE	4/28/06
EUT	FM Transmitter	DUTY CYCLE	N/A %
MODEL	IPTRNSX	PEAK TO AVG	N/A dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	R. Ramirez	LAB	F

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
616.7000		A	H			X	LOW	17.9	7.2	31.5	0.0				46.0	No Readings Found
616.7000		A	H			Y	LOW	17.9	7.2	31.5	0.0				46.0	
616.7000		A	H			Z	LOW	17.9	7.2	31.5	0.0				46.0	
616.7000		A	V			X	LOW	17.9	7.2	31.5	0.0				46.0	
616.7000		A	V			Y	LOW	17.9	7.2	31.5	0.0				46.0	
616.7000		A	V			Z	LOW	17.9	7.2	31.5	0.0				46.0	
620.9000		QP	H			X	MED.	17.8	7.3	31.5	0.0				46.0	
620.9000		QP	H			Y	MED.	17.8	7.3	31.5	0.0				46.0	
620.9000		QP	H			Z	MED.	17.8	7.3	31.5	0.0				46.0	
620.9000		QP	V			X	MED.	17.8	7.3	31.5	0.0				46.0	
620.9000		QP	V			Y	MED.	17.8	7.3	31.5	0.0				46.0	
620.9000		QP	V			Z	MED.	17.8	7.3	31.5	0.0				46.0	
753.9000		QP	H			X	HIGH	22.7	7.1	32.0	0.0				46.0	
753.9000		QP	H			Y	HIGH	22.7	7.1	32.0	0.0				46.0	
753.9000		QP	H			Z	HIGH	22.7	7.1	32.0	0.0				46.0	
753.9000		QP	V			X	HIGH	22.7	7.1	32.0	0.0				46.0	
753.9000		QP	V			Y	HIGH	22.7	7.1	32.0	0.0				46.0	
753.9000		QP	V			Z	HIGH	22.7	7.1	32.0	0.0				46.0	

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

** DELTA = SPEC LIMIT - CORRECTED READING

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RADIATED EMISSIONS (FCC SECTION 15.239)

COMPANY	Scosche Industries	DATE	4/28/06
EUT	FM Transmitter	DUTY CYCLE	N/A %
MODEL	IPTRNSX	PEAK TO AVG	N/A dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	R. Ramirez	LAB	F

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
704.8000		A	H			X	LOW	19.7	7.1	31.6	0.0				46.0	No Readings Found
704.8000		A	H			Y	LOW	19.7	7.1	31.6	0.0				46.0	
704.8000		A	H			Z	LOW	19.7	7.1	31.6	0.0				46.0	
704.8000		A	V			X	LOW	19.7	7.1	31.6	0.0				46.0	
704.8000		A	V			Y	LOW	19.7	7.1	31.6	0.0				46.0	
704.8000		A	V			Z	LOW	19.7	7.1	31.6	0.0				46.0	
709.6000		QP	H			X	MED.	20.0	7.1	31.6	0.0				46.0	
709.6000		QP	H			Y	MED.	20.0	7.1	31.6	0.0				46.0	
709.6000		QP	H			Z	MED.	20.0	7.1	31.6	0.0				46.0	
709.6000		QP	V			X	MED.	20.0	7.1	31.6	0.0				46.0	
709.6000		QP	V			Y	MED.	20.0	7.1	31.6	0.0				46.0	
709.6000		QP	V			Z	MED.	20.0	7.1	31.6	0.0				46.0	
861.6000		QP	H			X	HIGH	21.9	9.1	31.3	0.0				46.0	
861.6000		QP	H			Y	HIGH	21.9	9.1	31.3	0.0				46.0	
861.6000		QP	H			Z	HIGH	21.9	9.1	31.3	0.0				46.0	
861.6000		QP	V			X	HIGH	21.9	9.1	31.3	0.0				46.0	
861.6000		QP	V			Y	HIGH	21.9	9.1	31.3	0.0				46.0	
861.6000		QP	V			Z	HIGH	21.9	9.1	31.3	0.0				46.0	

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

** DELTA = SPEC LIMIT - CORRECTED READING

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RADIATED EMISSIONS (FCC SECTION 15.239)

COMPANY	Scosche Industries	DATE	4/28/06
EUT	FM Transmitter	DUTY CYCLE	N/A %
MODEL	IPTRNSX	PEAK TO AVG	N/A dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	R. Ramirez	LAB	F

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
792.9000		A	H			X	LOW	20.6	8.3	31.2	0.0				46.0	No Readings Found
792.9000		A	H			Y	LOW	20.6	8.3	31.2	0.0				46.0	
792.9000		A	H			Z	LOW	20.6	8.3	31.2	0.0				46.0	
792.9000		A	V			X	LOW	20.6	8.3	31.2	0.0				46.0	
792.9000		A	V			Y	LOW	20.6	8.3	31.2	0.0				46.0	
792.9000		A	V			Z	LOW	20.6	8.3	31.2	0.0				46.0	
798.3000		QP	H			X	MED.	20.3	8.4	31.0	0.0				46.0	
798.3000		QP	H			Y	MED.	20.3	8.4	31.0	0.0				46.0	
798.3000		QP	H			Z	MED.	20.3	8.4	31.0	0.0				46.0	
798.3000		QP	V			X	MED.	20.3	8.4	31.0	0.0				46.0	
798.3000		QP	V			Y	MED.	20.3	8.4	31.0	0.0				46.0	
798.3000		QP	V			Z	MED.	20.3	8.4	31.0	0.0				46.0	
969.3000		QP	H			X	HIGH	23.5	8.0	30.6	0.0				54.0	
969.3000		QP	H			Y	HIGH	23.5	8.0	30.6	0.0				54.0	
969.3000		QP	H			Z	HIGH	23.5	8.0	30.6	0.0				54.0	
969.3000		QP	V			X	HIGH	23.5	8.0	30.6	0.0				54.0	
969.3000		QP	V			Y	HIGH	23.5	8.0	30.6	0.0				54.0	
969.3000		QP	V			Z	HIGH	23.5	8.0	30.6	0.0				54.0	

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

** DELTA = SPEC LIMIT - CORRECTED READING

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RADIATED EMISSIONS (FCC SECTION 15.239)

COMPANY	Scosche Industries	DATE	4/28/06
EUT	FM Transmitter	DUTY CYCLE	N/A %
MODEL	IPTRNSX	PEAK TO AVG	N/A dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	R. Ramirez	LAB	F

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
881.0000		A	H			X	LOW	22.0	8.5	31.4	0.0				46.0	No Readings Found
881.0000		A	H			Y	LOW	22.0	8.5	31.4	0.0				46.0	
881.0000		A	H			Z	LOW	22.0	8.5	31.4	0.0				46.0	
881.0000		A	V			X	LOW	22.0	8.5	31.4	0.0				46.0	
881.0000		A	V			Y	LOW	22.0	8.5	31.4	0.0				46.0	
881.0000		A	V			Z	LOW	22.0	8.5	31.4	0.0				46.0	
887.0000		QP	H			X	MED.	22.0	8.3	31.4	0.0				46.0	
887.0000		QP	H			Y	MED.	22.0	8.3	31.4	0.0				46.0	
887.0000		QP	H			Z	MED.	22.0	8.3	31.4	0.0				46.0	
887.0000		QP	V			X	MED.	22.0	8.3	31.4	0.0				46.0	
887.0000		QP	V			Y	MED.	22.0	8.3	31.4	0.0				46.0	
887.0000		QP	V			Z	MED.	22.0	8.3	31.4	0.0				46.0	
1077.0000		QP	H			X	HIGH	24.9	6.7	31.7	0.0				54.0	
1077.0000		QP	H			Y	HIGH	24.9	6.7	31.7	0.0				54.0	
1077.0000		QP	H			Z	HIGH	24.9	6.7	31.7	0.0				54.0	
1077.0000		QP	V			X	HIGH	24.9	6.7	31.7	0.0				54.0	
1077.0000		QP	V			Y	HIGH	24.9	6.7	31.7	0.0				54.0	
1077.0000		QP	V			Z	HIGH	24.9	6.7	31.7	0.0				54.0	

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

** DELTA = SPEC LIMIT - CORRECTED READING

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