

**ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT
CERTIFICATION TO FCC PART 15 REQUIREMENTS**

for

UNINTENTIONAL RADIATOR

WIRELESS FRONT/ REAR DOOR CHIME RECEIVER

MODEL: 63-872A

FCC ID NO: AAO6300872A

REPORT NO: 00E9207

DATE: JANUARY 29, 2001

Prepared for

**RADIOSHACK CORPORATION
100 THROCKMORTON ST., STE. 1300,
FORT WORTH, TEXAS 76102-2802**

Prepared by

**COMPLIANCE ENGINEERING SERVICES, INC.
No. 199, CHUNG SHENG ROAD
HSIN TIEN CITY, TAIPEI, TAIWAN R.O.C.
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FAX: (02) 2217-1254**

NVLAP[®]
LAB CODE: SL2-IN-E-0005



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TEST DATA

- Fundamental Frequency Plot
- Radiated Emission Data

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User Manual.....	Attachment A
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1. VERIFICATION OF COMPLIANCE

COMPANY NAME : RADIOSHACK CCORPORATION.
100 THROCKMORTON ST., STE. 1300,
FORT WORTH, TEXAS 76102-2802

CONTACT PERSON : DWAYNE CAMPBELL / SENIOR MANAGER

TELEPHONE NO. : 817-416-3203

EUT DESCRIPTION : WIRELESS FRONT/REAR DOOR CHIME RECEIVER

MODEL NAME/NUMBER : 63-872A

FCC ID : AAO6300872A

DATE TESTED : DECEMBER 26, 2000

REPORT NUMBER : 00E9207

TYPE OF EQUIPMENT	SECURITY EQUIPMENT (UNINTENTIONAL RADIATOR)
EQUIPMENT TYPE	WIRELESS FRONT/REARDOOR CHIME RECEIVER
MEASUREMENT PROCEDURE	ANSI 63.4 / 1992
LIMIT TYPE	CERTIFICATION
FCC RULE	CFR 47, PART 15.109

The above equipment was tested by Compliance Engineering Services, Inc. for compliance with the requirements set forth in CFR 47, PART 15. This said equipment in the configuration described in this report shows that maximum emission levels emanating from equipment are within the compliance requirements.



RICK YEO / EMC MANAGER
COMPLIANCE ENGINEERING SERVICES, INC.

2. PRODUCT DESCRIPTION

RADIOSHACK CORPORATION. Model 63-872A is the receiving portion of a multi-purpose security device. The associated Transmitter is manufactured by SHAN YEUN CO., LTD., FCC ID: KPG-FRD63872T.

3. TEST FACILITY

The open area test sites and conducted measurement facilities used to collect the radiated data are located at No. 199, Chung Sheng Road, Hsin Tien City, Taipei, Taiwan R.O.C. The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

The measuring instrument which was utilized in performing the tests documented herein has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment which is traceable to recognized national standards.

4. MEASUREMENT EQUIPMENT USED

Manufacturer	Model Number	Description	Cal Due Date
R&S	SMY 02	Signal Generator (9 KHz – 2.08 GHz)	01/2001
H.P.	8595EM	Spectrum Analyzer (9 KHz – 6.5 GHz)	01/2001
EMCO	3142	Antenna (30-2000 MHz)	06/2001
T.E.C.	PA-102	Preamplifier (0.1 - 2000 MHz)	05/2001
EMCO	3115	Antenna(1 – 18 GHz)	09/2001
MITEQ	NSP2600-44	Preamplifier (1 - 26.5 GHz)	12/2001

5. TEST CONFIGURATION

Set frequency generator to 316 MHz. EUT receiving transmission continuously. All the wires are placed on the turn table to their maximum length to simulate the worse emission conditions.

6. TESTS CONDUCTED

CFR 47, 15.109 RADIATED EMISSION TESTS	CONDUCTED AT 3 METERS
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7. RADIATED EMISSION TEST PROCEDURE

The EUT and all other support equipment are placed on a wooden table 80 cm above the ground screen. Antenna to EUT distance is 3 meters. During the test, the table is rotated 360 degrees to maximize emissions and the antenna is positioned from 1 to 4 meters above the ground screen to further maximize emissions. The antenna is polarized in both vertical and horizontal positions.

Monitor the frequency range of interest at a fixed antenna height and EUT azimuth. Frequency span should be small enough to easily differentiate between broadcast stations and intermittent ambients. Rotate EUT 360 degrees to maximize emissions received from EUT. If emission increases by more than 1 dB, or if another emission appears that is greater by 1 dB, return to azimuth where maximum occurred and perform additional cable manipulation to further maximize received emission.

Move antenna up and down to further maximize suspected highest amplitude signal. If emission increased by 1 dB or more, or if another emission appears that is greater by 1dB or more, return to antenna height where maximum signal was observed and manipulate cables to produce highest emissions, noting frequency and amplitude.

8. COHERENT TESTS

During Radiated Emission Tests, R&S signal generator model no: SMY 02 (9K – 2.08G Hz) was used to radiate unmodulated CW signal to EUT at 316 MHz. Please refer to radiated radiate emission plots and data for the highest readings.

9. EQUIPMENT MODIFICATIONS

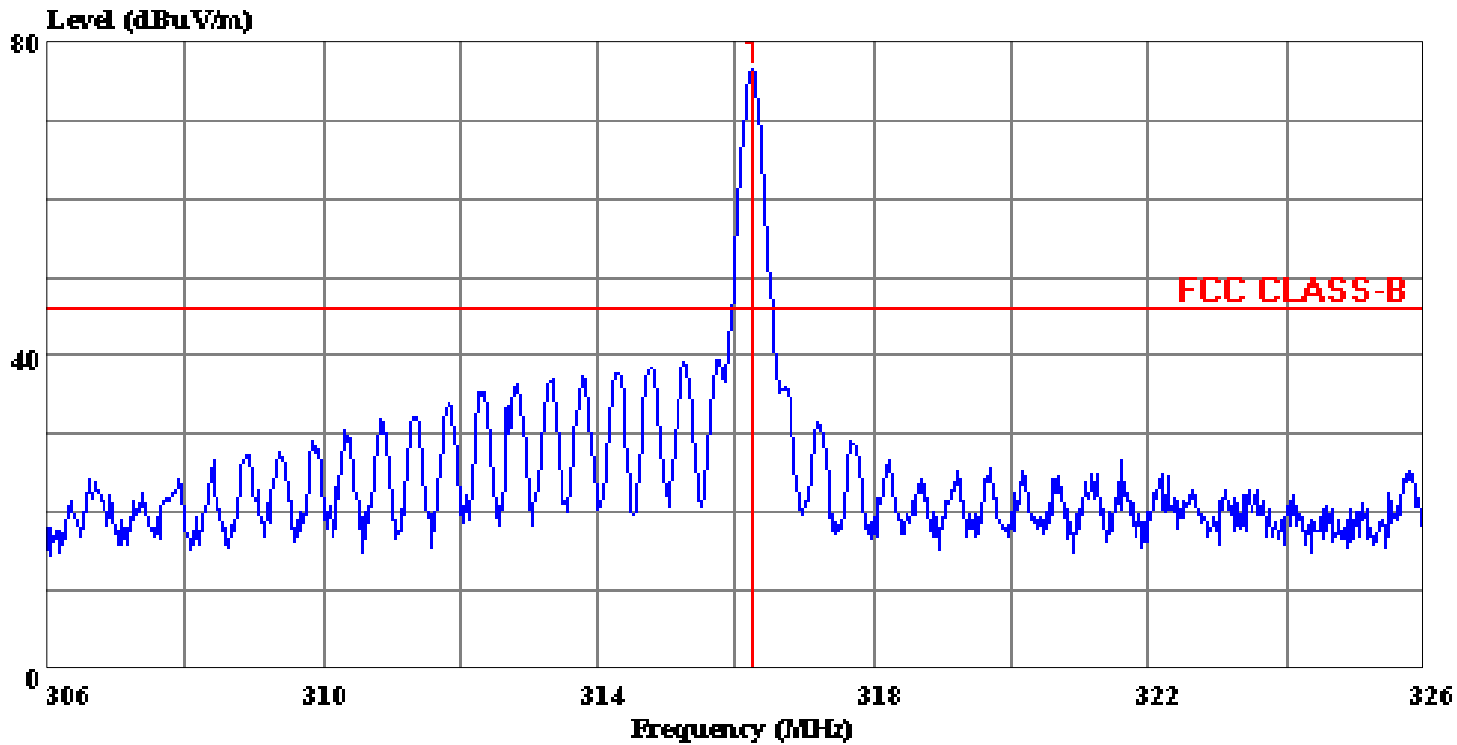
To achieve compliance to FCC section 15.109, the following change(s) were made during compliance testing:

NOT APPLICABLE

10. TEST CONFIGURATION PHOTOS (Radiated Emission Test)

Data#: 7 File#: 9207d.emi

Date: 2000-12-26 Time: 16:14:10



(CCS D-Site)

Trace: 3

Ref Trace:

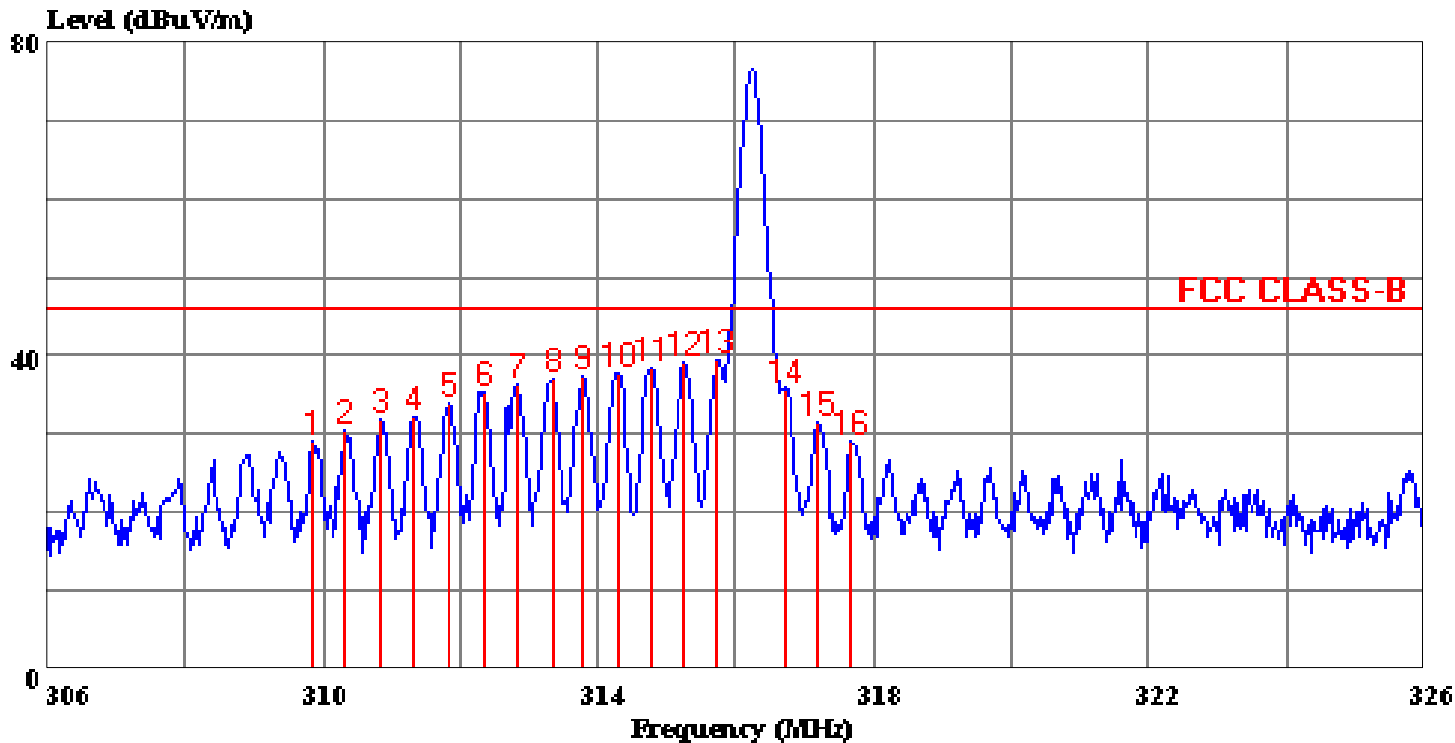
Condition: VERTICAL
Report No. : 00E9207
Test Engr. : VINCE CHIANG
Company : RADIOSHACK CORPORATION
EUT : 63-872A
Test Config : EUT/S.G.
Type of Test: FCC CLASS B
Mode of Op. : RX

Page: 1

	Freq	Level
	MHz	dBuV/m
1 *	316.240	76.54

Data#: 18 File#: 9207d.emi

Date: 2000-12-26 Time: 16:17:50



(CCS D-Site)

Trace: 3

Ref Trace:

Condition: VERTICAL
Report No. : 00E9207
Test Engr. : VINCE CHIANG
Company : RADIOSHACK CORPORATION
EUT : 63-872A
Test Config : EUT/S.G.
Type of Test: FCC CLASS B
Mode of Op. : RX

Page: 1

	Freq	Read Level	Probe Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	309.860	33.07	14.69	2.77	21.31	29.23	46.00	-16.77	Peak
2	310.340	34.17	14.71	2.77	21.31	30.33	46.00	-15.67	Peak
3	310.840	35.64	14.72	2.77	21.31	31.82	46.00	-14.18	Peak
4	311.320	36.02	14.73	2.78	21.31	32.22	46.00	-13.78	Peak
5	311.840	37.62	14.75	2.78	21.31	33.83	46.00	-12.17	Peak
6	312.340	39.17	14.76	2.78	21.31	35.40	46.00	-10.60	Peak
7	312.820	39.98	14.77	2.78	21.31	36.22	46.00	-9.78	Peak
8	313.340	40.89	14.79	2.78	21.31	37.15	46.00	-8.85	Peak
9	313.780	41.10	14.80	2.78	21.31	37.37	46.00	-8.63	Peak
10	314.280	41.61	14.81	2.78	21.31	37.89	46.00	-8.11	Peak
11	314.780	42.11	14.83	2.78	21.31	38.41	46.00	-7.59	Peak
12	315.260	42.93	14.84	2.78	21.31	39.24	46.00	-6.76	Peak
13	315.740	43.13	14.85	2.78	21.31	39.45	46.00	-6.55	Peak
14	316.720	39.48	14.88	2.79	21.31	35.84	46.00	-10.16	Peak
15	317.180	35.08	14.89	2.79	21.31	31.45	46.00	-14.55	Peak
16	317.680	32.57	14.90	2.79	21.31	28.95	46.00	-17.05	Peak

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CCS D-Site

Date: 2000-12-26 Time: 16:52:20

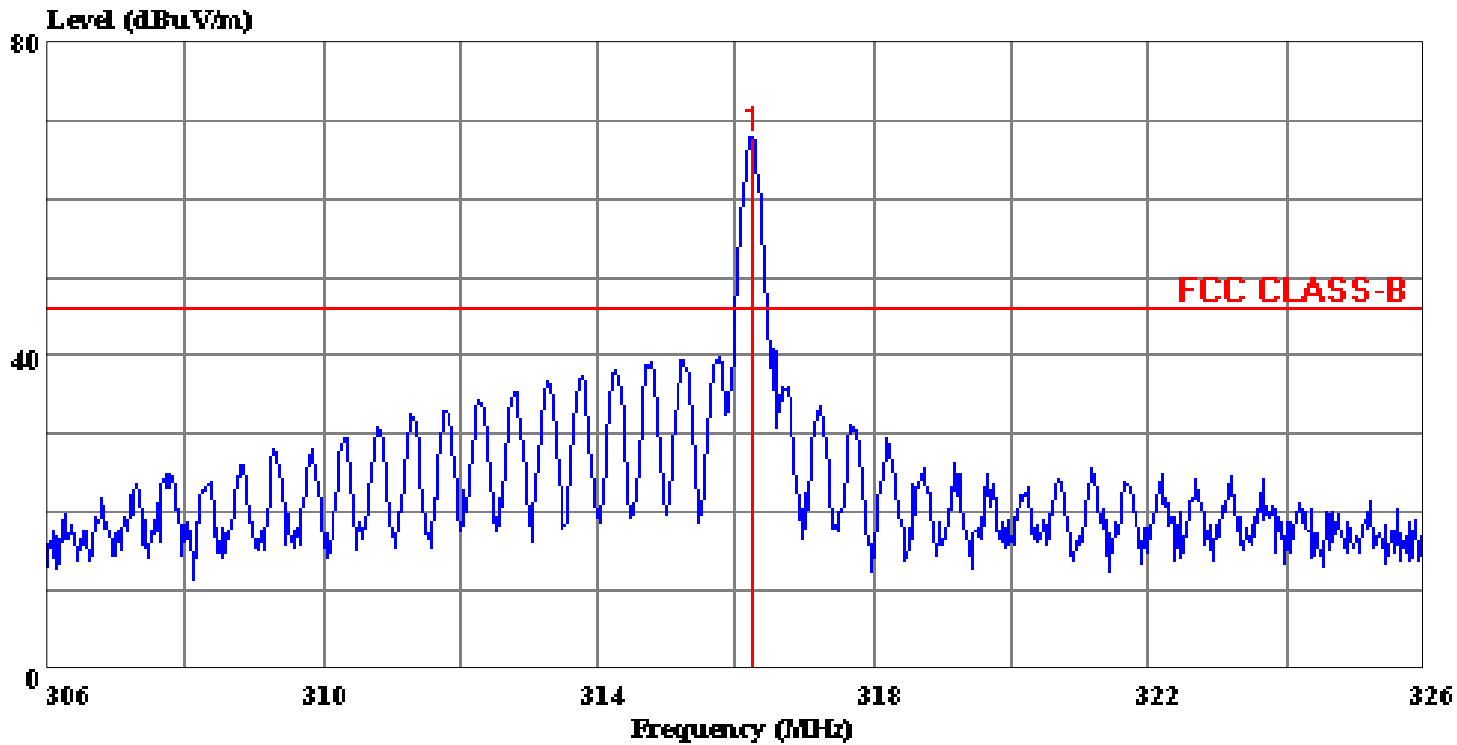
Condition: VERTICAL
Report No. : 00E9207
Test Engr. : VINCE CHIANG
Company : RADIOSHACK CORPORATION
EUT : 63-872A
Test Config : EUT/S.G.
Type of Test: FCC CLASS B
Mode of Op. : ALL DATAS READING UP TO 2000MHz

Page: 1

	Freq	Read Level	Probe Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	625.060	26.12	20.67	3.77	21.17	29.38	46.00	-16.62	Peak
2	625.580	26.27	20.68	3.77	21.17	29.55	46.00	-16.45	Peak
3	626.020	26.95	20.69	3.77	21.17	30.24	46.00	-15.76	Peak
4	626.520	27.28	20.69	3.77	21.16	30.58	46.00	-15.42	Peak
5	627.280	36.42	20.70	3.77	21.16	39.74	46.00	-6.26	Peak
6	627.940	26.09	20.71	3.77	21.15	29.42	46.00	-16.58	Peak
7	628.500	26.47	20.72	3.77	21.15	29.81	46.00	-16.19	Peak
8	629.060	26.37	20.73	3.77	21.15	29.72	46.00	-16.28	Peak
9	629.460	25.91	20.73	3.77	21.14	29.27	46.00	-16.73	Peak
10	629.940	26.29	20.74	3.77	21.14	29.66	46.00	-16.34	Peak
11	630.500	26.01	20.75	3.77	21.14	29.40	46.00	-16.60	Peak
12	630.940	25.43	20.75	3.77	21.13	28.82	46.00	-17.18	Peak
13	631.700	28.40	20.76	3.77	21.13	31.81	46.00	-14.19	Peak
14	632.480	34.47	20.78	3.77	21.12	37.89	46.00	-8.11	Peak
15	937.860	18.83	24.07	4.71	20.28	27.33	46.00	-18.67	Peak
16	938.300	19.64	24.07	4.71	20.27	28.15	46.00	-17.85	Peak
17	938.780	21.77	24.08	4.71	20.27	30.29	46.00	-15.71	Peak
18	939.280	20.68	24.08	4.72	20.27	29.21	46.00	-16.79	Peak
19	939.760	22.08	24.08	4.72	20.26	30.62	46.00	-15.38	Peak
20	940.320	22.81	24.09	4.73	20.26	31.37	46.00	-14.63	Peak
21	940.820	21.29	24.09	4.73	20.25	29.86	46.00	-16.14	Peak
22	941.300	23.42	24.10	4.74	20.25	32.00	46.00	-14.00	Peak
23	941.740	21.98	24.10	4.74	20.25	30.57	46.00	-15.43	Peak
24	942.300	22.66	24.10	4.74	20.24	31.27	46.00	-14.73	Peak
25	942.760	24.24	24.11	4.75	20.24	32.85	46.00	-13.15	Peak
26	943.240	21.16	24.11	4.75	20.24	29.79	46.00	-16.21	Peak
27	945.260	20.66	24.12	4.77	20.22	29.33	46.00	-16.67	Peak
28	945.980	22.38	24.13	4.77	20.21	31.07	46.00	-14.93	Peak
29	948.180	21.39	24.14	4.79	20.20	30.13	46.00	-15.87	Peak
30	948.740	21.49	24.15	4.80	20.19	30.25	46.00	-15.75	Peak

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Date: 2000-12-26 Time: 16:08:47



(CCS D-Site)

Trace: 4

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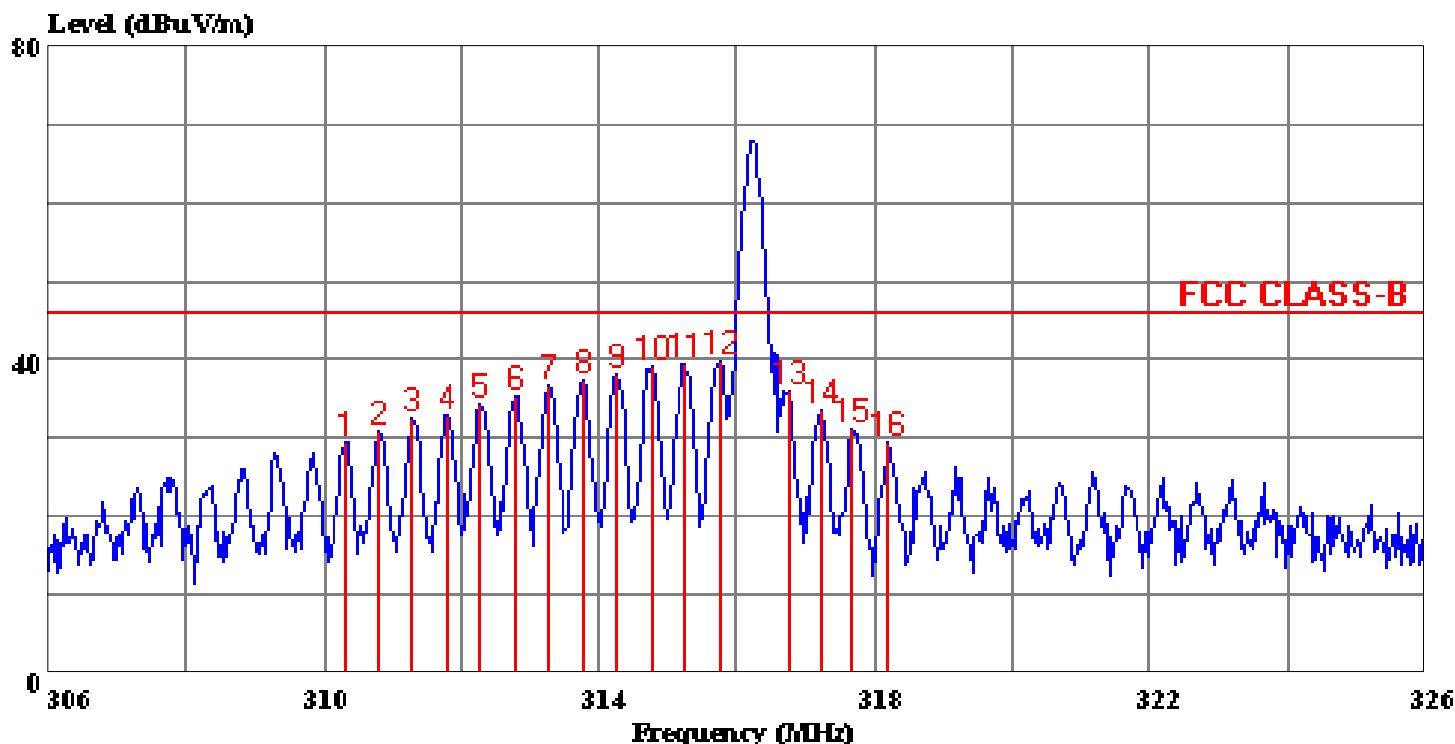
Condition: HORIZONTAL
Report No. : 00E9207
Test Engr. : VINCE CHIANG
Company : RADIOSHACK CORPORATION
EUT : 63-872A
Test Config : EUT/S.G.
Type of Test: FCC CLASS B
Mode of Op. : RX

Page: 1

	Freq	Level
	MHz	dBuV/m
1 *	316.220	68.04

Data#: 17 File#: 9207d.emi

Date: 2000-12-26 Time: 16:13:02



(CCS D-File)

Trace: 4

Ref Trace:

Condition: HORIZONTAL
Report No. : 00E9207
Test Engr. : VINCE CHIANG
Company : RADIOSHACK CORPORATION
EUT : 63-872A
Test Config : EUT/S.G.
Type of Test: FCC CLASS B
Mode of Op. : RX

Page: 1

	Freq	Read Level	Probe Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	310.340	33.35	14.71	2.77	21.31	29.52	46.00	-16.48	Peak
2	310.780	34.65	14.72	2.77	21.31	30.83	46.00	-15.17	Peak
3	311.280	36.22	14.73	2.78	21.31	32.42	46.00	-13.58	Peak
4	311.800	36.83	14.75	2.78	21.31	33.04	46.00	-12.96	Peak
5	312.280	38.00	14.76	2.78	21.31	34.23	46.00	-11.77	Peak
6	312.800	39.07	14.77	2.78	21.31	35.31	46.00	-10.69	Peak
7	313.260	40.41	14.79	2.78	21.31	36.67	46.00	-9.33	Peak
8	313.760	40.97	14.80	2.78	21.31	37.24	46.00	-8.76	Peak
9	314.240	41.71	14.81	2.78	21.31	37.99	46.00	-8.01	Peak
10	314.760	42.70	14.83	2.78	21.31	38.99	46.00	-7.01	Peak
11	315.240	43.33	14.84	2.78	21.31	39.64	46.00	-6.36	Peak
12	315.760	43.61	14.85	2.78	21.31	39.94	46.00	-6.06	Peak
13	316.740	39.57	14.88	2.79	21.31	35.93	46.00	-10.07	Peak
14	317.220	37.06	14.89	2.79	21.31	33.43	46.00	-12.57	Peak
15	317.680	34.75	14.90	2.79	21.31	31.13	46.00	-14.87	Peak
16	318.180	32.87	14.92	2.79	21.31	29.27	46.00	-16.73	Peak

Data#: 22 File#: 9207d.emi
CCS D-Site

Date: 2000-12-26 Time: 16:46:52

Condition: HORIZONTAL
Report No. : 00E9207
Test Engr. : VINCE CHIANG
Company : RADIOSHACK CORPORATION
EUT : 63-872A
Test Config : EUT/S.G.
Type of Test: FCC CLASS B
Mode of Op. : ALL DATAS READING UP TO 2000MHz

Page: 1

	Freq	Read Level	Probe Factor	Cable Loss	Preamplifier Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	624.100	27.92	20.66	3.77	21.18	31.17	46.00	-14.83	Peak
2	624.540	29.77	20.66	3.77	21.18	33.03	46.00	-12.97	Peak
3	625.080	29.87	20.67	3.77	21.17	33.14	46.00	-12.86	Peak
4	625.540	29.77	20.68	3.77	21.17	33.05	46.00	-12.95	Peak
5	626.040	30.56	20.69	3.77	21.17	33.85	46.00	-12.15	Peak
6	626.520	30.94	20.69	3.77	21.16	34.24	46.00	-11.76	Peak
7	626.980	31.35	20.70	3.77	21.16	34.66	46.00	-11.34	Peak
8	627.560	32.03	20.71	3.77	21.16	35.35	46.00	-10.65	Peak
9	628.020	31.96	20.71	3.77	21.15	35.29	46.00	-10.71	Peak
10	628.500	31.42	20.72	3.77	21.15	34.76	46.00	-11.24	Peak
11	628.960	30.76	20.73	3.77	21.15	34.11	46.00	-11.89	Peak
12	629.480	31.14	20.73	3.77	21.14	34.51	46.00	-11.49	Peak
13	630.020	30.56	20.74	3.77	21.14	33.93	46.00	-12.07	Peak
14	630.460	29.42	20.75	3.77	21.14	32.80	46.00	-13.20	Peak
15	630.940	28.40	20.75	3.77	21.13	31.79	46.00	-14.21	Peak
16	634.440	27.87	20.80	3.77	21.11	31.33	46.00	-14.67	Peak
17	635.000	28.22	20.81	3.77	21.11	31.70	46.00	-14.30	Peak
18	938.780	28.60	24.08	4.71	20.27	37.13	46.00	-8.87	Peak
19	939.300	27.26	24.08	4.72	20.27	35.79	46.00	-10.21	Peak
20	939.820	27.89	24.08	4.72	20.26	36.44	46.00	-9.56	Peak
21	940.340	29.70	24.09	4.73	20.26	38.25	46.00	-7.75	Peak
22	940.760	29.29	24.09	4.73	20.25	37.86	46.00	-8.14	Peak
23	941.280	29.95	24.10	4.74	20.25	38.53	46.00	-7.47	Peak
24	941.780	29.95	24.10	4.74	20.25	38.54	46.00	-7.46	Peak
25	942.320	29.11	24.10	4.74	20.24	37.72	46.00	-8.28	Peak
26	942.820	29.70	24.11	4.75	20.24	38.31	46.00	-7.69	Peak
27	943.260	28.91	24.11	4.75	20.23	37.53	46.00	-8.47	Peak
28	943.640	30.13	24.11	4.76	20.23	38.76	46.00	-7.24	Peak
29	945.060	32.44	24.12	4.77	20.22	41.11	46.00	-4.89	Peak
30	947.180	26.57	24.14	4.78	20.20	35.29	46.00	-10.71	Peak
31	947.560	27.99	24.14	4.79	20.20	36.72	46.00	-9.28	Peak
32	948.180	28.30	24.14	4.79	20.20	37.04	46.00	-8.96	Peak
33	948.680	28.12	24.15	4.80	20.19	36.87	46.00	-9.13	Peak
34	949.180	27.36	24.15	4.80	20.19	36.12	46.00	-9.88	Peak
35	949.800	29.26	24.16	4.80	20.19	38.02	46.00	-7.98	Peak
36	950.180	28.20	24.16	4.80	20.19	36.96	46.00	-9.04	Peak
37	951.640	29.72	24.17	4.79	20.20	38.48	46.00	-7.52	Peak
38	952.040	31.96	24.17	4.79	20.20	40.72	46.00	-5.28	Peak

Compliance Engineering Services, Inc.

Project No. : 00E9207

Report No. : 9207D#17-22

Date : 2000-12-26

Test Engr : Vince Chiang

>> 3m RADIATED EMISSION DATA <<

Company : RADIOSHACK CORPORATION

Equipment Under Test : 63-872A

Test Configuration : EUT/S.G.

Test Spec. : FCC CLASS B

Mode of Operation : 6 Worst Data Readings

Freq. MHz	Reading dBuV	Antenna dB	Cable dB	Amp. dB	Level dBuV/m	Limit dBuV	Margin dB	Remark P/Q/A	Pol. H/V
315.74	43.13	14.85	2.78	21.31	39.45	46.00	-6.55	Peak	V
627.28	36.42	20.70	3.77	21.16	39.74	46.00	-6.26	Peak	V
315.24	43.33	14.84	2.78	21.31	39.64	46.00	-6.36	Peak	H
315.76	43.61	14.85	2.78	21.31	39.94	46.00	-6.06	Peak	H
945.06	32.44	24.12	4.77	20.22	41.11	46.00	-4.89	Peak	H
952.04	31.96	24.17	4.79	20.20	40.72	46.00	-5.28	Peak	H

Total Data#. 6