APPLICANT: SECURITY ASSOCIATES INTERNATIONAL INC.
d/b/a J. TECHNOLOGY

FCC ID: NNKS3RCV

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May 7, 1998

Federal Communications Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
Colombia, MD 21046

SUBJECT: FCC ID: NNKS3RCV

To Whom It May Concern:

Enclosed please find an application for certification for Security Associates International, Inc.'s d/b/a J. Technology's FCC ID: NNKS3RCV. This application consists of 2 different models of a security device receiver - model JT2 and JT3. Both models have identical RF portions; both PCB's are the same except JT2 has one less feature then JT3.

We are submitting these receivers under one FCC identifier. We have included photographs of both models.

The test data attached was on model JT3 which has the most features.

Should you have any questions or require any further information, please advise.

Regards,

S.S.SANDERS

SSS/bam
Encl.

APPLICANT: Security Associates International Inc.
d/b/a J. Technology
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APPLICANT: SECURITY ASSOCIATES INTERNATIONAL INC.

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RULES:2.1033(b)(4) CIRCUIT DESCRIPTION

As shown in an attached diagram, the modulated carrier is received by an internal antenna is amplified by a transistor (Q1) and the signal is put into the transistor (Q2) which is making a periodic quenching oscillation.

The modulating code signal is detected from the modulated carrier signal at this transistor and amplified by an OP AMP (IC2) and then is put into the input of a decoder IC (IC1).

If this code signal corresponds to the code signal of the decoder, the pulse signal is generated from the output of the decoder.

ANTENNA & GROUND:

This unit is equipped with a 12 inch external antenna.

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TEST EQUIPMENT LIST

1. Spectrum Analyzer: Hewlett Packard 8566B, with preselector HP 85685A, & Quasi-Peak Adapter HP 8565OA, & HP 8449B OPT H02 Cal. 9/30/97
2. Eaton Biconnical Antenna Model 94455-1 20-200 MHz Serial No. 0997 Cal. 9/17/97
3. Electro-Metric Dipole Kit, 20-1000 MHz, Model TDA 25 cal. 5/15/97
4. Electro-Metric Horn 1-18 GHz, Model RGA-180, Cal. 9/24/97
5. Electro-Metric Antennas Model TDS-25-1, TDS-25-2, 9/3/97
6. Electro-Metric Line Impedance Stabilization Network Model No. EM-7021, 50uH. 9/30/97
7. Electro-Metric Line Impedance Stabilization Network Model No. EM-7021, 50uH. 9/30/97

TEST PROCEDURE

GENERAL: This report shall NOT be reproduced except in full without the written approval of TIMCO ENGINEERING, INC.

RADIATION INTERFERENCE: The test procedure used was ANSI STANDARD C63.4-1992 using a HEWLETT PACKARD spectrum analyzer with a preselector. The bandwidth of the spectrum analyzer was 100 kHz with an appropriate sweep speed. The analyzer was calibrated in dB above a microvolt at the output of the antenna. The resolution BW was 100KHz and the video bandwidth was 300KHz up to 1.0GHz and RBW was 1.0MHz with a VBW of 3.0MHz above 1.0GHz. The ambient temperature of the UUT was 68.6oF with a humidity of 60%.

FORMULA OF CONVERSION FACTORS: The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB. The gain of the Preselector was accounted for in the Spectrum Analyzer Meter Reading.

Example:

Freq (MHz)	METER READING + ACF = FS
33	20 dBuV + 10.36 dB = 30.36 dBuV/m @ 3m

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TEST PROCEDURES CONTINUED

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ANSI STANDARD C63.4-1992 10.1.7 MEASUREMENT PROCEDURES: The unit under test was placed on a table 80 cm high and with dimensions of 1m by 1.5m. The table used for radiated measurements is capable of continuous rotation.

When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes.

The situation was similar for the conducted measurement except that the table did not rotate. The EUT was setup as described in ANSIC63.4-1992 with the EUT 40 cm from the vertical ground wall.

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NAME OF TEST: RADIATION INTERFERENCE

RULES PART NO.: 15.109

REQUIREMENTS: 30-88 MHz 40.0 dBuV/m measured at 1 meter
88-216 MHz 43.5 dbuV/m
216-960 MHz 46.0 dbuV/m
ABOVE 960 MHz 54.0 dbuV/m

TEST DATA:

TUNED FREQ. MHz	EMISSION FREQUENCY MHz	METER READING @ 3m dBuV	COAX LOSS dB	A.C.F. dB	FIELD STRENGTH dBuV/m@3m	MARGIN dB	ANT.
304.31	265.94	8.20	1.40	13.84	23.44	22.56	H
304.31	266.91	10.30	1.40	13.87	25.57	20.43	H
304.31	267.92	11.40	1.40	13.89	26.69	19.31	H
304.31	268.94	13.20	1.40	13.92	28.52	17.48	H
304.31	269.89	13.60	1.40	13.95	28.95	17.05	H
304.31	270.95	14.70	1.40	13.98	30.08	15.92	H
304.31	271.90	15.60	1.40	14.01	31.01	14.99	H
304.31	272.91	14.50	1.40	14.04	29.94	16.06	H
304.31	273.85	15.80	1.40	14.07	31.27	14.73	H
304.31	274.83	13.90	1.40	14.10	29.40	16.60	H
304.31	275.78	16.30	1.40	14.15	31.85	14.15	H
304.31	276.71	15.50	1.40	14.21	31.11	14.89	H
304.31	277.75	16.20	1.40	14.28	31.88	14.12	H
304.31	278.77	17.10	1.40	14.34	32.84	13.16	H
304.31	279.69	17.40	1.40	14.40	33.20	12.80	H
304.31	280.73	17.50	1.40	14.47	33.37	12.63	H
304.31	281.72	18.70	1.40	14.53	34.63	11.37	H
304.31	282.68	19.20	1.40	14.59	35.19	10.81	H
304.31	283.69	18.40	1.40	14.66	34.46	11.54	H
304.31	284.59	18.70	1.40	14.71	34.81	11.19	H
304.31	285.62	18.50	1.40	14.78	34.68	11.32	H
304.31	286.60	17.60	1.40	14.84	33.84	12.16	H
304.31	287.59	17.40	1.40	14.91	33.71	12.29	H
304.31	288.57	17.30	1.40	14.97	33.67	12.33	H
304.31	289.54	17.10	1.40	15.03	33.53	12.47	H
304.31	290.60	18.40	1.40	15.10	34.90	11.10	H
304.31	291.53	20.70	1.40	15.16	37.26	8.74	H

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NAME OF TEST: RADIATION INTERFERENCE CONTD.

RULES PART NO.: 15.109

REQUIREMENTS:
30-88 MHz 40.0 dbuV/m
88-216 MHz 43.5 dbuV/m
216-960 MHz 46.0 dbuV/m
ABOVE 960 MHz 54.0 dbuV/m

TEST DATA CONTINUED:

TUNED FREQ. MHz	EMISSION FREQUENCY MHz	METER READING @ 3m dBuV	COAX LOSS dB	A.C.F. dB	FIELD STRENGTH dBuV/m@3m	MARGIN dB	ANT.
304.31	292.53	19.50	1.40	15.22	36.12	9.88	H
304.31	293.51	18.90	1.40	15.28	35.58	10.42	H
304.31	294.51	19.20	1.40	15.35	35.95	10.05	H
304.31	295.49	18.50	1.40	15.41	35.31	10.69	H
304.31	296.46	17.70	1.40	15.47	34.57	11.43	H
304.31	298.44	15.70	1.40	15.60	32.70	13.30	H
304.31	299.40	13.80	1.40	15.66	30.86	15.14	H
304.31	300.38	12.30	1.40	15.69	29.39	16.61	H
304.31	301.38	9.50	1.40	15.65	26.55	19.45	H
304.31	302.36	9.60	1.40	15.62	26.62	19.38	H
304.31	304.38	10.70	1.40	15.54	27.64	18.36	H
304.31	305.30	16.10	1.40	15.51	33.01	12.99	H
304.31	306.32	16.10	1.40	15.47	32.97	13.03	H
304.31	307.27	15.90	1.40	15.44	32.74	13.26	H
304.31	308.25	15.30	1.40	15.40	32.10	13.90	H
304.31	309.21	14.10	1.40	15.37	30.87	15.13	H
304.31	310.22	13.10	1.40	15.33	29.83	16.17	H
304.31	311.20	11.70	1.40	15.30	28.40	17.60	H
304.31	312.20	10.90	1.40	15.26	27.56	18.44	H
304.31	313.18	9.40	1.40	15.23	26.03	19.97	H
304.31	314.20	9.50	1.40	15.19	26.09	19.91	H
304.31	315.17	7.70	1.40	15.15	24.25	21.75	H
304.31	316.13	7.20	1.40	15.12	23.72	22.28	H
304.31	317.17	5.30	1.40	15.08	21.78	24.22	H
304.31	318.17	6.40	1.40	15.05	22.85	23.15	H

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NAME OF TEST: RADIATION INTERFERENCE CONTD.

METHOD OF MEASUREMENT: The procedure used was ANSI STANDARD C63.4-1992. The spectrum was scanned from 30 MHz to at 2 GHz. The spectrum analyzer was as specified in ANSI STANDARD C63.4-1992. The receiver was put into a coherent mode.

1) Resolution bandwidth 100 kHz to 1 GHz and 1 MHz above 1 GHz
2) Frequency scan per division 1 MHz/division
3) Scan time was set to 20 mS/division
4) A preselecltor was a part of the spectrum analyzer system for the frequency range.
5) A weak, on frequency signal was used to place the receiver in the coherent mode.
6) The line spectrum of pulse analysis was used.

SAMPLE CALCULATION:

FSdBuV/m = MR(dBuV)+ACFdB.

TEST RESULTS: The unit DOES meet the FCC requirements.

PERFORMED BY: S. S. SANDERS DATE: MAY 15, 1998