



Test Report

For

Applicant : EmCom Technology Inc.
Equipment Type : Wireless Security Camera Systems
Model : WS-50TX
FCC ID : BDEEMWS-50TX

Report No. : 006H058FI



Test Report Certification

QuieTek Corporation

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Accredited by NIST(NVLAP), VCCI, BSMI, DNV, TUV

Applicant : EmCom Technology Inc.

Address : 6F, No. 19, Nanking East Rd., Sec.3, Taipei, Taiwan, R.O.C.

Equipment Type : Wireless Security Camera Systems

Model : WS-50TX

FCC ID. : BDEEMWS-50TX

Measurement Standard : FCC Part 15 Subpart C Paragraph 15.249

Measurement Procedure : ANSI C63.4 /1992

Operation Voltage : 120VAC/60Hz

Test Result : Complied

Test Date : JUN. 26, 2000

Report No. : 006H058FI



The Test Results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.

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

Documented by: Kim Hung

Test Engineer: Sean Chang

Approved: Kevin Wang



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1. General Information

1.1 EUT Description

Applicant	: EmCom Technology Inc.
Address	: 6F, No. 19, Nanking East Rd., Sec.3, Taipei, Taiwan, R.O.C.
Equipment Type	: Wireless Security Camera Systems
Model	: WS-50TX
FCC ID	: BDEEMWS-50TX
Operation Voltage	: 120VAC/60Hz
Frequency Range	: 2414MHz to 2468MHz
Channel Number	: 4
Frequency of Each Channel	: 2414MHz, 2432 MHz, 2450MHz and 2468MHz
Working Frequency	
Type of Modulation	: FM
Power Adapter	: LEI, 350903002COA Cable Out: Non-shielded, 2.1m

Note:

1. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.249 for non-spread spectrum devices.
2. The receiver part was tested in report "006H058F" subjected to Part 15 paragraph 15.5.
3. QuieTek had verified the construction and function in typical operation, then shown in this test report.

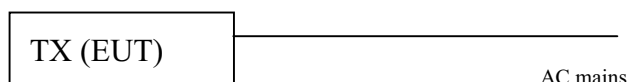


1.2 Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

1.2.1 None

1.3 EUT Configuration



1.4 EUT Exercise Software

The EUT exercise program used during conducted testing was designed to exercise the EUT in a manner similar to a typical use. The exercise sequence is listed as below:

1.4.1 Setup the EUT and simulators as shown on 1.3.

1.4.2 Turn on the power of all equipment.

1.4.3 The EUT will emit the radio signal to Receiver.

1.4.4 Repeat the above procedure 1.4.2 to 1.4.3

1.5 Test performed

Conducted emissions were investigated over the frequency range from **0.45MHz to 30MHz** using a receiver bandwidth of 9kHz.

Radiated emissions were investigated over the frequency range from **30MHz to 1000MHz** using a receiver bandwidth of 120kHz and the frequency range from **1GHz to 24GHz** using a receiver bandwidth of 1MHz.

Radiated testing was performed at an antenna to EUT distance of 3 meters.

1.6 Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

Site Description: November 3, 1998 File on
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046
Reference 31040/SIT1300F2



September 30, 1998 Accreditation on NVLAP
NVLAP Lab Code: 200347-0

February 23, 1999 Accreditation on DNV
Statement No. : 413-99-LAB11



December 8, 1998 Registration on VCCI
Registration No. for No.2 Shielded Room C-858
Registration No. for No.1 Open Area Test Site R-823
Registration No. for No.2 Open Area Test Site R-835



January 04, 1999 Accreditation on TÜV Rheinland
Certificate No.: I9865712-9901



Name of firm : QuieTek Corporation

Site location : No.75-1, Wang-Yeh Valley, Yung-Hsing Tsuen,
Chiung-Lin, Hsin-Chu County, Taiwan, R.O.C.



2. Conducted Emission

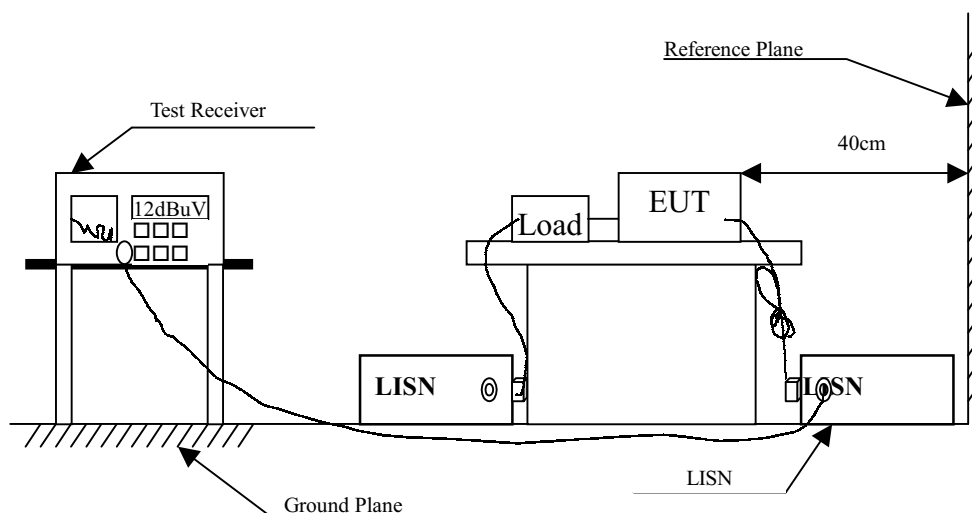
2.1 Test Equipment List

The following test equipment are used during the conducted emission test:

Item	Instrument	Manufacturer	Type No./Serial No	Last Cal..	Remark
1	Test Receiver	R & S	ESCS 30/825442/17	May, 2000	
2	L.I.S.N.	R & S	ESH3-Z5/825016/6	May, 2000	EUT
3	L.I.S.N.	Kyoritsu	KNW-407/8-1420-3	May, 2000	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2	N/A	
5	N0.2 Shielded Room			N/A	

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

2.2 Test Setup



2.3 Limits

FCC Part 15 Paragraph 15.207		
Frequency MHz	Limits	
	uV	dBuV
0.45 - 30	250	48.0

2.4 Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4 /1992 on conducted measurement.

The bandwidth of the field strength meter (R & S Test Receiver ESCS 30) is set at 9kHz.

2.5 Test Results

The conducted emission from the EUT is measured and shown in Attachment 1. The acceptance criterion was met and the EUT passed the test.



3. Radiated Emission

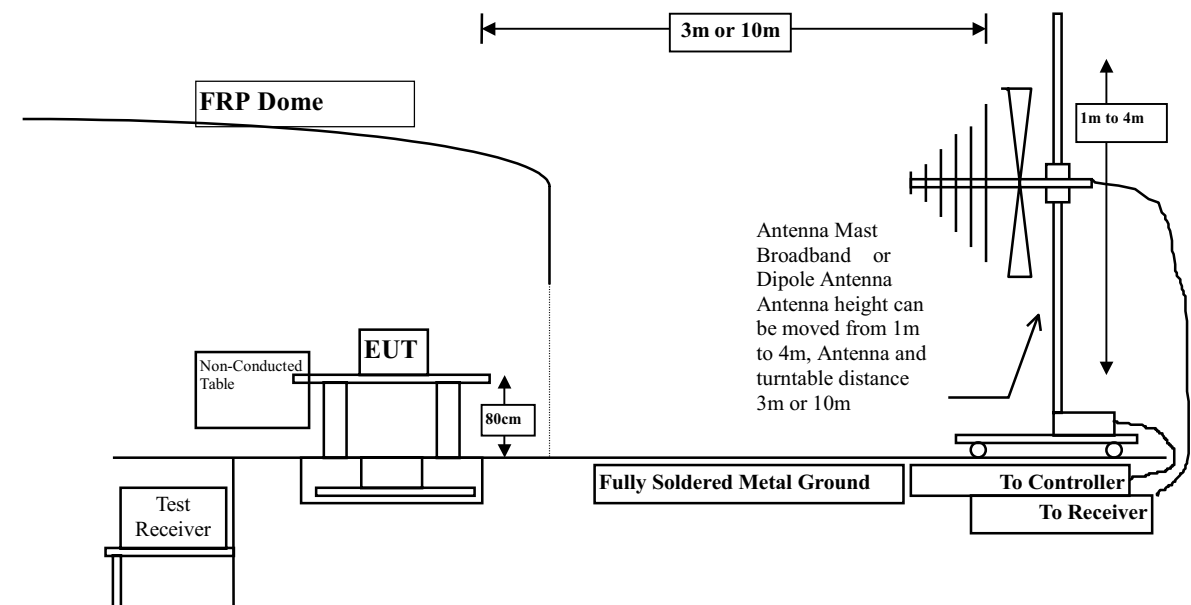
3.1 Test Equipment

The following test equipment are used during the radiated emission test:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 1	X	Test Receiver	R & S	ESCS 30 / 825442/14	May, 2000
		Spectrum Analyzer	Advantest	R3261C / 71720140	May, 2000
		Pre-Amplifier	HP	8447D/3307A01812	May, 2000
	X	Bilog Antenna	Chase	CBL6112B / 12452	Sep., 1999
	X	Horn Antenna	EM	EM6917 / 103325	May, 2000
Site # 2	X	Test Receiver	R & S	ESCS 30 / 825442/17	May, 2000
		Spectrum Analyzer	Advantest	R3261C / 71720609	May, 2000
		Pre-Amplifier	HP	8447D/3307A01814	May, 2000
	X	Bilog Antenna	Chase	CBL6112B / 2455	Sep., 1999
	X	Horn Antenna	EM	EM6917 / 103325	May, 2000

Note: 1. All equipment upon which need to calibrated are with calibration period of 1 year.
2.. Mark "X" test instruments are used to measure the final test results.

3.2 Test Setup



3.3 Limits

➤ Fundamental and Harmonics Emission Limits

Frequency MHz	Field Strength of Fundamental		Field Strength of Harmonics	
	(mV/m @3m)	(dBuV/m @3m)	(uV/m @3m)	(dBuV/m @3m)
2400-2483.5	50	94 (Average)	500	54 (Average)
		114 (Peak)		74 (Peak)

➤ General Radiated Emission Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

Frequency MHz	50dB below of the fundamental (dBuV/m @3m)	15.209 Limits (dBuV/m @3m)	General Radiated Limits (dBuV/m @3m)
30-88	40	40	40
88-216	43.5	43.5	43.5
216-960	44	46	46
Above 960	44	54	54

Remarks :

1. RF Line Voltage (dBuV) = 20 log RF Line Voltage (uV)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

3.4 Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters .

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4 /1992 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter (R&S Test Receiver ESCS 30) is 120 kHz and above 1GHz is 1MHz.

3.5 Test Results

The radiated emission from the EUT is measured and shown in Attachment 1. The acceptance criterion was met and the EUT passed the test.



4. EMI Reduction Method During Compliance Testing

No modification was made during testing.



5. Attachment

Attachment 1: Summary of Test Results	Number of Pages: 21
Attachment 2: EUT Test Photographs	Number of Pages: 8
Attachment 3: EUT Detailed Photographs	Number of Pages: 14



Attachment 1 : Summary of Test Results

The test results in the emission were performed according to the requirements of measurement standard and process. QuieTek Corporation is assumed full responsibility for the accuracy and completeness of these measurements. The test data of the emission are listed as the attached data.

All the tests were carried out with the EUT (Wireless Security Camera Systems) in normal operation, which was defined as:

- (1) Channel 1
- (2) Channel 2
- (3) Channel 4

The EUT passed all the tests.

The uncertainty is calculated in accordance with NAMAS NIS 81, The total uncertainty for this test is as follows:

➤ **Emission Test**

- Uncertainty in the Conducted Emission Test: $< \pm 2.0 \text{ dB}$
- Uncertainty in the field strength measured: $< \pm 4.0 \text{ dB}$



CONDUCTED EMISSION DATA

Date of Test	:	JUN. 26, 2000	EUT	:	WS-50TX
Test Mode	:	Channel 1	Detect Mode	:	Quasi-Peak

Frequency	Cable	LISN	Reading Level	Measurement Level	Limits
	Loss	Factor	Line1	Line1	
MHz	dB	dB	dBuV	dBuV	dBuV
0.466	0.06	0.10	0.90	1.06	48.00
0.524	0.07	0.10	1.20	1.37	48.00
1.251	0.11	0.11	1.10	1.32	48.00
1.302	0.12	0.11	12.10	12.33	48.00
1.493	0.13	0.12	0.50	0.74	48.00
*28.634	0.39	0.58	15.70	16.68	48.00

Remarks :

1. “ * ” means that this data is the worst emission level.
2. The average measurement was not performed when the peak measured data under the limit of average detection.



CONDUCTED EMISSION DATA

Date of Test : JUN. 26, 2000 EUT : Wireless Security Camera Systems

Test Mode : Channel 1 Detect Mode : Quasi-Peak

Frequency	Cable	LISN	Reading Level	Measurement Level	Limits
MHz	Loss	Factor	Line2	Line2	
	dB	dB	dBuV	dBuV	dBuV
0.462	0.06	0.10	0.90	1.06	48.00
1.173	0.11	0.11	0.50	0.72	48.00
1.251	0.11	0.11	3.60	3.82	48.00
1.360	0.12	0.11	3.40	3.63	48.00
3.579	0.18	0.16	7.80	8.13	48.00
*28.634	0.39	0.58	16.20	17.18	48.00

Remarks :

1. “ * ” means that this data is the worst emission level.
2. The average measurement was not performed when the peak measured data under the limit of average detection.



CONDUCTED EMISSION DATA

Date of Test : JUN. 26, 2000 EUT : Wireless Security Camera Systems

Test Mode : Channel 2 Detect Mode : Quasi-Peak

Frequency	Cable	LISN	Reading Level	Measurement Level	Limits
	Loss	Factor	Line1	Line1	
MHz	dB	dB	dBuV	dBuV	dBuV
1.315	0.12	0.11	3.00	3.23	48.00
1.429	0.12	0.12	3.80	4.04	48.00
1.642	0.13	0.12	0.40	0.65	48.00
3.583	0.18	0.16	5.50	5.83	48.00
4.103	0.19	0.16	0.30	0.65	48.00
*28.634	0.39	0.58	15.70	16.68	48.00

Remarks :

1. “ * ” means that this data is the worst emission level.
2. The average measurement was not performed when the peak measured data under the limit of average detection.



CONDUCTED EMISSION DATA

Date of Test : JUN. 26, 2000 EUT : Wireless Security Camera Systems

Test Mode : Channel 2 Detect Mode : Quasi-Peak

Frequency	Cable	LISN	Reading Level	Measurement Level	Limits
	Loss	Factor	Line2	Line2	
MHz	dB	dB	dBuV	dBuV	dBuV
0.450	0.06	0.10	2.10	2.26	48.00
1.370	0.12	0.11	5.10	5.33	48.00
1.487	0.12	0.12	2.40	2.64	48.00
3.567	0.18	0.16	0.60	0.93	48.00
4.103	0.19	0.16	0.20	0.55	48.00
*28.634	0.39	0.58	16.30	17.28	48.00

Remarks :

1. “ * ” means that this data is the worst emission level.
2. The average measurement was not performed when the peak measured data under the limit of average detection.



CONDUCTED EMISSION DATA

Date of Test : JUN. 26, 2000 EUT : Wireless Security Camera Systems

Test Mode : Channel 4 Detect Mode : Quasi-Peak

Frequency	Cable	LISN	Reading Level	Measurement Level	Limits
MHz	Loss	Factor	Line1	Line1	
	dB	dB	dBuV	dBuV	dBuV
0.454	0.06	0.10	1.60	1.76	48.00
1.315	0.12	0.11	2.70	2.93	48.00
1.429	0.12	0.12	3.60	3.84	48.00
3.583	0.18	0.16	5.20	5.53	48.00
4.103	0.19	0.16	0.30	0.65	48.00
*28.634	0.39	0.58	15.70	16.68	48.00

Remarks :

1. “ * ” means that this data is the worst emission level.
2. The average measurement was not performed when the peak measured data under the limit of average detection.



CONDUCTED EMISSION DATA

Date of Test : JUN. 26, 2000 EUT : Wireless Security Camera Systems

Test Mode : Channel 4 Detect Mode : Quasi-Peak

Frequency	Cable	LISN	Reading Level	Measurement Level	Limits
	Loss	Factor	Line2	Line2	
MHz	dB	dB	dBuV	dBuV	dBuV
0.454	0.06	0.10	1.30	1.46	48.00
1.315	0.12	0.11	2.90	3.13	48.00
1.429	0.12	0.12	2.90	3.14	48.00
3.583	0.18	0.16	4.60	4.93	48.00
4.103	0.19	0.16	0.30	0.65	48.00
*28.634	0.39	0.58	16.20	17.18	48.00

Remarks :

1. “ * ” means that this data is the worst emission level.
2. The average measurement was not performed when the peak measured data under the limit of average detection.



General Radiated Emission Data

Date of Test	: JUN. 26, 2000	EUT	: Wireless Security Camera Systems
Test Mode	: Channel 1	Test Site	: Open Site 2

Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement HORIZONTAL	Margin	Limit	Ant	Turn
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m	cm	deg
50.370	1.08	7.24	26.00	35.60	17.92	22.08	40.00	0	0
56.190	1.11	5.94	26.00	38.00	19.04	20.96	40.00	0	0
89.170	1.24	11.24	26.00	40.20	26.69	16.81	43.50	0	0
125.060	1.39	12.96	26.00	30.80	19.16	24.34	43.50	0	0
158.040	1.53	11.53	26.00	32.20	19.26	24.24	43.50	0	0
255.040	1.93	13.53	26.00	31.00	20.46	25.54	46.00	0	0
358.830	2.36	16.06	26.00	29.00	21.42	24.58	46.00	0	0

Remarks:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level.
3. Emission Level = Reading Level + Antenna Factor + Cable loss



General Radiated Emission Data

Date of Test	: JUN. 26, 2000	EUT	: <u>Wireless Security Camera Systems</u>
Test Mode	: <u>Channel 1</u>	Test Site	: <u>Open Site 2</u>

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit	Ant	Turn
	Loss	Factor		Level	VERTICAL				
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m	cm	deg
49.400	1.08	8.47	26.00	38.20	21.75	18.25	40.00	0	0
90.140	1.25	10.75	26.00	37.60	23.60	19.90	43.50	0	0
107.600	1.32	11.76	26.00	33.00	20.08	23.42	43.50	0	0
199.750	1.70	9.68	26.00	32.20	17.58	25.92	43.50	0	0
232.730	1.84	12.29	26.00	33.60	21.73	24.27	46.00	0	0
362.710	2.37	15.68	26.00	29.40	21.45	24.55	46.00	0	0

Remarks:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level.
3. Emission Level = Reading Level + Antenna Factor + Cable loss



General Radiated Emission Data

Date of Test	: JUN. 26, 2000	EUT	: Wireless Security Camera Systems
Test Mode	: Channel 2	Test Site	: Open Site 2

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit	Ant	Turn
	Loss	Factor		Level	HORIZONTAL				
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m	cm	deg
50.370	1.08	7.24	26.00	38.00	20.32	19.68	40.00	0	0
65.890	1.15	6.96	26.00	36.00	18.11	21.89	40.00	0	0
87.230	1.24	10.91	26.00	38.40	24.55	15.45	40.00	0	0
107.600	1.32	12.54	26.00	34.00	21.86	21.64	43.50	0	0
123.120	1.38	12.88	26.00	33.20	21.46	22.04	43.50	0	0
224.970	1.80	10.68	26.00	35.00	21.48	24.52	46.00	0	0
242.430	1.88	12.34	26.00	34.80	23.02	22.98	46.00	0	0

Remarks:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level.
3. Emission Level = Reading Level + Antenna Factor + Cable loss



General Radiated Emission Data

Date of Test	: JUN. 26, 2000	EUT	: Wireless Security Camera Systems
Test Mode	: Channel 2	Test Site	: Open Site 2

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit	Ant	Turn
	Loss	Factor		Level	VERTICAL				
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m	cm	deg
35.820	1.02	13.65	26.00	40.20	28.88	11.12	40.00	0	0
42.610	1.05	10.51	26.00	38.20	23.77	16.23	40.00	0	0
54.250	1.10	8.24	26.00	37.40	20.74	19.26	40.00	0	0
83.350	1.22	9.87	26.00	34.00	19.09	20.91	40.00	0	0
105.660	1.31	11.92	26.00	31.60	18.83	24.67	43.50	0	0
255.040	1.93	13.39	26.00	30.80	20.12	25.88	46.00	0	0
326.820	2.22	14.18	26.00	37.40	27.81	18.19	46.00	0	0

Remarks:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level.
3. Emission Level = Reading Level + Antenna Factor + Cable loss



General Radiated Emission Data

Date of Test	: JUN. 26, 2000	EUT	: Wireless Security Camera Systems
Test Mode	: Channel 4	Test Site	: Open Site 2

Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement HORIZONTAL	Margin	Limit	Ant	Turn
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m	cm	deg
49.400	1.08	7.64	26.00	34.20	16.92	23.08	40.00	0	0
77.530	1.20	9.46	26.00	35.40	20.05	19.95	40.00	0	0
89.170	1.24	11.24	26.00	33.60	20.09	23.41	43.50	0	0
104.690	1.31	12.33	26.00	32.40	20.04	23.46	43.50	0	0
125.060	1.39	12.96	26.00	31.20	19.56	23.94	43.50	0	0
143.490	1.47	12.06	26.00	31.20	18.73	24.77	43.50	0	0
303.540	2.13	13.56	26.00	33.80	23.49	22.51	46.00	0	0

Remarks:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level.
3. Emission Level = Reading Level + Antenna Factor + Cable loss



General Radiated Emission Data

Date of Test	: JUN. 26, 2000	EUT	: Wireless Security Camera Systems
Test Mode	: Channel 4	Test Site	: Open Site 2

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit	Ant	Turn
	Loss	Factor		Level	VERTICAL				
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m	cm	deg
38.730	1.04	11.74	26.00	40.60	27.38	12.62	40.00	0	0
48.430	1.08	8.17	26.00	42.80	26.05	13.95	40.00	0	0
72.680	1.18	8.53	26.00	39.20	22.90	17.10	40.00	0	0
85.290	1.23	10.53	26.00	40.20	25.95	14.05	40.00	0	0
105.660	1.31	11.92	26.00	32.80	20.03	23.47	43.50	0	0
127.970	1.40	11.50	26.00	34.80	21.71	21.79	43.50	0	0
270.560	1.99	13.59	26.00	36.00	25.59	20.41	46.00	0	0
287.050	2.06	13.58	26.00	34.40	24.04	21.96	46.00	0	0

Remarks:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level.
3. Emission Level = Reading Level + Antenna Factor + Cable loss



Fundamental Radiated Emission Data

Date of Test :	JUN. 26, 2000	EUT :	Wireless Security Camera Systems
Test Mode :	Normal	Test Site :	Open Site 2

Freq. MHz	Cable Loss dB	Probe Factor dB/m	PreAMP dB	Reading Level dBuV	Measurement Horizontal dBuV/m	Margin dB	Limit dBuV/m	Ant cm	Turn deg
<hr style="border-top: 3px double #000;"/>									

Peak

Channel 1

2414.000	3.84	29.26	34.90	89.32	87.52	26.48	114.00	0	0
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Channel 2

2432.000	3.86	29.31	34.90	90.28	88.54	25.46	114.00	0	0
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Channel 4

2468.000	3.89	29.39	34.90	89.13	87.52	26.48	114.00	0	0
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Remarks:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level.
3. Emission Level = Reading Level + Antenna Factor + Cable loss
4. The average measurement was not performed when the peak measured data under the limit of average detection.



Fundamental Radiated Emission Data

Date of Test	:	JUN. 26, 2000	EUT	:	Wireless Security Camera Systems
Test Mode	:	Normal	Test Site	:	Open Site 2

Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement Vertical	Margin	Limit	Ant	Turn
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m	cm	deg

Peak

Channel 1

2412.700	3.84	29.26	34.90	92.86	91.06	22.94	114.00	0	0
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Channel 2

2432.000	3.86	29.31	34.90	93.76	92.02	21.98	114.00	0	0
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Channel 4

2466.600	3.89	29.39	34.90	95.20	93.59	20.41	114.00	0	0
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Remarks:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level.
3. Emission Level = Reading Level + Antenna Factor + Cable loss.
4. The average measurement was not performed when the peak measured data under the limit of average detection.



Harmonic Radiated Emission Data

Date of Test : JUN. 26, 2000 EUT : **Wireless Security Camera Systems**

Test Mode : Channel 1 Test Site : Open Site 2

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit	Ant	Turn
MHz	Loss	Factor		Level	Horizontal			cm	deg
	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m		
Peak									
4837.000	6.29	33.52	34.76	44.17	49.21	24.79	74.00	0	0
7256.400	8.34	36.26	34.90	43.64	>53.33	20.67	74.00	0	0
9668.500	10.19	37.43	35.10	43.22	>55.74	18.26	74.00	0	0
12071.40	11.91	39.13	34.65	43.54	>59.93	14.07	74.00	0	0
Average									
9667.800	10.19	37.43	35.10	32.59	>45.11	8.89	54.00	0	0
12071.40	11.91	39.13	34.65	31.84	>48.23	5.77	54.00	0	0

Remarks:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level.
3. Emission Level = Reading Level + Antenna Factor + Cable loss
4. The average measurement was not performed when the peak measured data under the limit of average detection.



Harmonic Radiated Emission Data

Date of Test : JUN. 26, 2000 EUT : **Wireless Security Camera Systems**

Test Mode : Channel 1 Test Site : Open Site 2

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit	Ant	Turn
MHz	Loss	Factor		Level	Vertical			cm	deg
	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m		
Peak									
4837.000	6.29	33.52	34.76	47.06	52.10	21.90	74.00	0	0
7239.900	8.32	36.24	34.90	42.55	>52.21	21.79	74.00	0	0
9655.200	10.18	37.43	35.10	43.30	>55.81	18.19	74.00	0	0
12069.60	11.91	39.13	34.65	43.67	>60.06	13.94	74.00	0	0
Average									
9655.000	10.18	37.43	35.10	32.26	>44.77	9.23	54.00	0	0
12069.60	11.91	39.13	34.65	31.98	>48.37	5.63	54.00	0	0

Remarks:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level.
3. Emission Level = Reading Level + Antenna Factor + Cable loss
4. The average measurement was not performed when the peak measured data under the limit of average detection.



Harmonic Radiated Emission Data

Date of Test	:	JUN. 26, 2000	EUT	:	Wireless Security Camera Systems
Test Mode	:	Channel 2	Test Site	:	Open Site 2

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit	Ant	Turn
MHz	Loss	Factor		Level	Horizontal			cm	deg
	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m		
Peak									
4865.500	6.30	33.54	34.76	44.73	49.82	24.18	74.00	0	0
7296.200	8.37	36.29	34.90	42.23	>51.98	22.02	74.00	0	0
9728.300	10.23	37.44	35.10	42.77	>55.34	18.66	74.00	0	0
12158.00	11.97	39.16	34.58	43.65	>60.20	13.80	74.00	0	0
Average									
9726.700	10.23	37.44	35.10	31.34	>43.91	10.09	54.00	0	0
12158.10	11.97	39.16	34.58	31.48	>48.03	5.97	54.00	0	0

Remarks:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level.
3. Emission Level = Reading Level + Antenna Factor + Cable loss
4. The average measurement was not performed when the peak measured data under the limit of average detection.



Harmonic Radiated Emission Data

Date of Test : JUN. 26, 2000 EUT : **Wireless Security Camera Systems**

Test Mode : Channel 2 Test Site : Open Site 2

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit	Ant	Turn
MHz	Loss	Factor		Level	Vertical			cm	deg
	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m		
Peak									
4865.500	6.30	33.54	34.76	46.58	51.67	22.33	74.00	0	0
7295.400	8.37	36.29	34.90	41.50	>51.25	22.75	74.00	0	0
9727.900	10.23	37.44	35.10	42.89	>55.46	18.54	74.00	0	0
12157.40	11.97	39.16	34.58	43.91	>60.46	13.54	74.00	0	0
Average									
9725.400	10.23	37.44	35.10	32.29	>44.86	9.14	54.00	0	0
12157.40	11.97	39.16	34.58	31.49	>48.04	5.96	54.00	0	0

Remarks:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level.
3. Emission Level = Reading Level + Antenna Factor + Cable loss
4. The average measurement was not performed when the peak measured data under the limit of average detection.



Harmonic Radiated Emission Data

Date of Test	:	JUN. 26, 2000	EUT	:	Wireless Security Camera Systems
Test Mode	:	Channel 4	Test Site	:	Open Site 2

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit	Ant	Turn
MHz	Loss	Factor		Level	Horizontal			cm	deg
	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m		
Peak									
4936.000	6.38	33.64	34.72	45.46	50.76	23.24	74.00	0	0
7402.400	8.45	36.39	34.90	41.59	>51.53	22.47	74.00	0	0
9869.200	10.34	37.47	35.10	42.93	>55.65	18.35	74.00	0	0
12339.50	12.10	39.24	34.43	42.88	>59.78	14.22	74.00	0	0
Average									
9872.000	10.34	37.47	35.10	32.44	>45.16	8.84	54.00	0	0
12339.50	12.10	39.24	34.43	31.37	>48.27	5.73	54.00	0	0

Remarks:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level.
3. Emission Level = Reading Level + Antenna Factor + Cable loss
4. The average measurement was not performed when the peak measured data under the limit of average detection.



Harmonic Radiated Emission Data

Date of Test : JUN. 26, 2000 EUT : **Wireless Security Camera Systems**

Test Mode : Channel 4 Test Site : Open Site 2

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit	Ant	Turn
MHz	Loss	Factor		Level	Vertical			cm	deg
	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m		
Peak									
4936.100	6.38	33.64	34.72	46.70	52.00	22.00	74.00	0	0
7402.200	8.45	36.39	34.90	41.95	>51.89	22.11	74.00	0	0
9868.100	10.34	37.47	35.10	43.66	>56.38	17.62	74.00	0	0
12340.80	12.10	39.24	34.43	43.19	>60.09	13.91	74.00	0	0
Average									
9872.800	10.34	37.47	35.10	32.50	>45.22	8.78	54.00	0	0
12340.80	12.10	39.24	34.43	31.37	>48.27	5.73	54.00	0	0

Remarks:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level.
3. Emission Level = Reading Level + Antenna Factor + Cable loss
4. The average measurement was not performed when the peak measured data under the limit of average detection.

