FCC ID: TW4AT202

FCC TEST REPORT

REPORT NO.: 061005FIA01

MODEL NO.: AT202

RECEIVED: Oct. 16, 2006

TESTED: Oct. 16 ~ Oct. 23, 2006

ISSUED: Oct. 23, 2006

APPLICANT: SHENZHEN AEE TECHNOLOGY CO., LTD

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Northern Hi-Tech Industrial Park,
Nanshan District, Shenzhen, P. R. C

ISSUED BY: ADT (Shanghai) Corporation

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Shanghai, China

ADT (Shanghai) Corporation.

ACCREDITED
No.: 2343.01

V 1.0

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1 CERTIFICATION

PRODUCT:	2.4G wireless camera
BRAND NAME:	AEE
MODEL NO.:	AT202
APPLICANT:	SHENZHEN AEE TECHNOLOGY CO., LTD
TESTED:	Oct. 16 ~ Oct. 23, 2006
TEST ITEM:	ENGINEERING SAMPLE
STANDARDS:	47 CFR Part 15, Subpart C (Section 15.249), ANSI C63.4-2003

The above equipment has been tested by **ADT (Shanghai) Corporation**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

TECHNICAL ACCEPTANCE : _____ , **DATE:** OCT. 23, 2006

(Bright Tong)
Engineering Supervisor

APPROVED BY : _____ , **DATE:** OCT. 23, 2006

(Wallace Pan)
Director of Operations

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: 47 CFR Part 15, Subpart C			
Standard Paragraph	**Test Type**	**Result**	**Remark**
15.207	Conducted Emission Test (Mode A, Channel 1)	PASS	Minimum passing margin is –27.96dB at 0.373MHz
15.249	Radiated Emission Test (Mode A, Channel 1, 30 ~ 1000MHz)	PASS	Minimum passing margin is –6.95dB at 133.63MHz
	Radiated Emission Test (Mode B, Channel 1, 30 ~ 1000MHz)	PASS	Minimum passing margin is –5.81dB at 152.73MHz
	Radiated Emission Test (Mode A, Channel 1, Above 1GHz)	PASS	Minimum passing margin is –8.13dB at 12070MHz
	Radiated Emission Test (Mode A, Channel 2, Above 1GHz)	PASS	Minimum passing margin is –8.27dB at 12160MHz
	Radiated Emission Test (Mode A, Channel 4, Above 1GHz)	PASS	Minimum passing margin is –7.78dB at 12340MHz
15.249	Band Edge Measurement	PASS	Meet the requirement of limit

2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4:

Measurement	Value
Conducted emissions	1.8dB
Radiated emissions	3.5dB

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	2.4G wireless camera
MODEL NO.	AT202
POWER SUPPLY	120Vac, 60Hz
POWER ADAPTER	I/P: 2m, non-shielded O/P: 2m, non-shielded
MODULATION TYPE	FM
FREQUENCY RANGE OF OPERATION	2.414 ~ 2.468 MHz
CHANNEL SEPARATION	18 MHz
NUMBER OF CHANNEL	4
ANTENNA TYPE	Soldered on PCB
DATA CABLE SUPPLIED	N/A
I/O PORTS	N/A

NOTE: 1. The EUT contains two parts. One is TX (model No.: AT202, device name: 2.4G wireless camera) and the other one is RX (model No.: AR202, device name: 2.4G wireless receiver). This test report only recorded the test results of TX. As to the test results of RX please refer to report 061005FA01, which produced under subcontract of Advance Data Technology Corp..

2. More information for power adapter:

MODEL NO.	MANUFACTURER	I/P	O/P
OH-41019 DT	ORIENTAL NERO ELECTRONICALLY FACTORY	120Vac, 60Hz	8Vdc, 300mA

3. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

Four channels are provided to this EUT:

Channel	Frequency
1	2.414 GHz
2	2.432 GHz
3	2.450 GHz
4	2.468 GHz

Test Mode Applicability AND TESTED CHANNEL DETAIL:

EUT configure mode	Applicable to					Description
	PLC	RE<1G	RE≥1G	APM	BE	
A	√	√	√	-	√	Set the EUT under daylight mode
B	-	√	-	-	-	Set the EUT under night mode

Where PLC: Power Line Conducted Emission RE<1G RE: Radiated Emission below 1GHz
RE≥1G: Radiated Emission above 1GHz APM: Antenna Port Measurement
BE: Band Edge Measurement

Power Line Conducted Emission Test

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, and X.Y.Z. axis.

☒ Following channel(s) was (were) selected for the final test as listed below.

Test Mode	Available Channel	Tested Channel	Modulation Type	Axis
A	1~4	1	FM	Z

Radiated Emission Test (Below 1 GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, and X.Y.Z. axis.

☒ Following channel(s) was (were) selected for the final test as listed below.

Test Mode	Available Channel	Tested Channel	Modulation Type	Axis
A	1~4	1	FM	Z
B	1~4	1	FM	Z

Radiated Emission Test (Above 1 GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, and X.Y.Z. axis.

☒ Following channel(s) was (were) selected for the final test as listed below.

Test Mode	Available Channel	Tested Channel	Modulation Type	Axis
A	1~4	1, 2, 4	FM	Z

Band Edge Measurement

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, and X.Y.Z. axis.

☒ Following channel(s) was (were) selected for the final test as listed below.

Test Mode	Available Channel	Tested Channel	Modulation Type	Axis
A	1~4	1, 4	FM	Z

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a 2.4G wireless camera. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

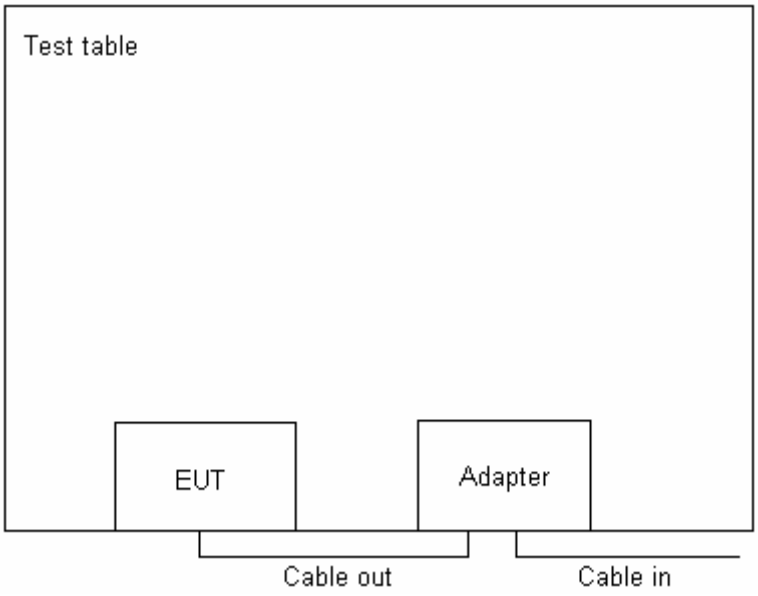
47 CFR Part 15, Subpart C (Section 15.249)
ANSI C63.4: 2003

All test items have been performed and recorded as per the above standards.

3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit

For test mode: A & B



4 EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

Frequency (MHz)	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

NOTES: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	E1R1002	Jun. 12, 2007
LISN ROHDE & SCHWARZ	NSLK8127	E1L1001	Jan. 31, 2007
Software ADT	ADT_Cond_V7.3.0	N/A	N/A

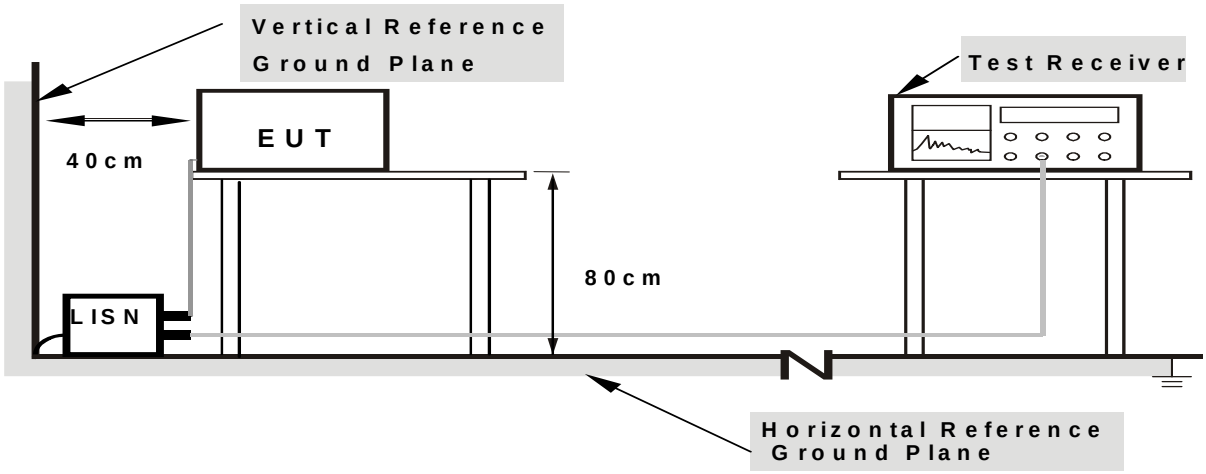
4.1.3 TEST PROCEDURE

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit - 20dB) were not reported.

4.1.4 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.1.5 EUT OPERATING CONDITIONS

Set the EUT under transmission condition continuously at specific channel frequency.

4.1.6 TEST RESULTS

EUT	2.4G wireless camera	**MODEL NO.**	AT202
TEST MODE	Mode A	**6dB BANDWIDTH**	9kHz
INPUT POWER	120Vac, 60Hz	**PHASE**	Line (L1)
ENVIRONMENTAL CONDITIONS	20deg. C, 50% RH, 1012hPa	**TESTED BY:** Brain	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.151	1.58	21.08	0.91	22.66	2.49	65.93	55.93	-43.28	-53.45
2	0.340	0.74	27.59	-2.29	28.33	-1.55	59.20	49.20	-30.88	-50.76
3	0.626	0.50	16.27	-7.20	16.77	-6.70	56.00	46.00	-39.23	-52.70
4	0.869	0.26	14.05	-8.55	14.31	-8.29	56.00	46.00	-41.69	-54.29
5	6.741	0.47	1.54	-10.28	2.01	-9.81	60.00	50.00	-57.99	-59.81
6	25.248	0.70	23.96	18.41	24.66	19.11	60.00	50.00	-35.34	-30.89

REMARKS: 1.Margin value = Emission level - Limit value
2 Correction factor = Insertion loss + Cable loss
3. Emission Level = Correction Factor + Reading Value.

EUT	2.4G wireless camera	**MODEL NO.**	AT202
TEST MODE	Mode A	**6dB BANDWIDTH**	9kHz
INPUT POWER	120Vac, 60Hz	**PHASE**	N
ENVIRONMENTAL CONDITIONS	20deg. C, 50% RH, 1012hPa	**TESTED BY:** Brain	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.151	1.79	20.87	-1.87	22.66	-0.08	65.93	55.93	-43.28	-56.02
2	0.226	1.23	21.49	-3.17	22.72	-1.94	62.58	52.58	-39.86	-54.52
3	**0.373**	**0.90**	**29.58**	**-4.34**	**30.48**	**-3.44**	**58.44**	**48.44**	**-27.96**	**-51.88**
4	0.796	0.60	14.69	-8.13	15.29	-7.53	56.00	46.00	-40.71	-53.53
5	2.093	0.40	7.95	-10.70	8.35	-10.30	56.00	46.00	-47.65	-56.30
6	25.248	0.70	23.88	17.68	24.58	18.38	60.00	50.00	-35.42	-31.62

REMARKS: 1.Margin value = Emission level - Limit value
2 Correction factor = Insertion loss + Cable loss
3. Emission Level = Correction Factor + Reading Value.

4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

According to 15.249 the field strength of emissions from intentional radiators operated under these frequencies bands shall not exceed the following:

Fundamental Frequency (MHz)	Field Strength of Fundamental (dBuV/m)	
	Peak	Average
2400 ~ 2483.5	113.98	93.98

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	E1R1001	Apr. 19, 2007
BILOG Antenna SCHWARZBECK	VULB9168	E1A1001	Sept. 26, 2007
Preamplifier Agilent	8447D	E1A2001	Jan. 27, 2007
Preamplifier Agilent	8449B	E1A2002	Jan. 27, 2007
Double Ridged Broadband Horn Antenna Schwarzbeck	BBHA 9120D	E1A1002	Feb. 15, 2007
Spectrum Analyzer Agilent	E4403B	E1S1001	Jan. 13, 2007
Spectrum Analyzer ROHDE & SCHWARZ	FSP30	E1S1002	May. 15, 2007
RF signal cable Woken	RG-402	E1CBH01	May. 30, 2007
RF signal cable Woken	RG-402	E1CBH02	May. 30, 2007
RF signal cable Woken	RG-402	E1CBH03	May. 30, 2007
RF signal cable Woken	RG-412	E1CBL02	May. 30, 2007
RF signal cable Woken	RG-412	E1CBL03	May. 30, 2007
RF signal cable Woken	RG-412	E1CBL04	May. 30, 2007
Software ADT	ADT_Radiated_V7.5	N/A	N/A

NOTE: 1. The calibration interval of the above test instruments is 12 months.
2. The horn antenna and Agilent preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The Spectrum Analyzer (model: FSP30) and RF signal cable (SERIAL: E1CBH05&E1CBH07) are used only for the measurement of emission frequency above 1GHz if tested.

4.2.3 TEST PROCEDURE

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using the quasi-peak method or average method as specified and then reported in Data sheet peak mode and QP mode.

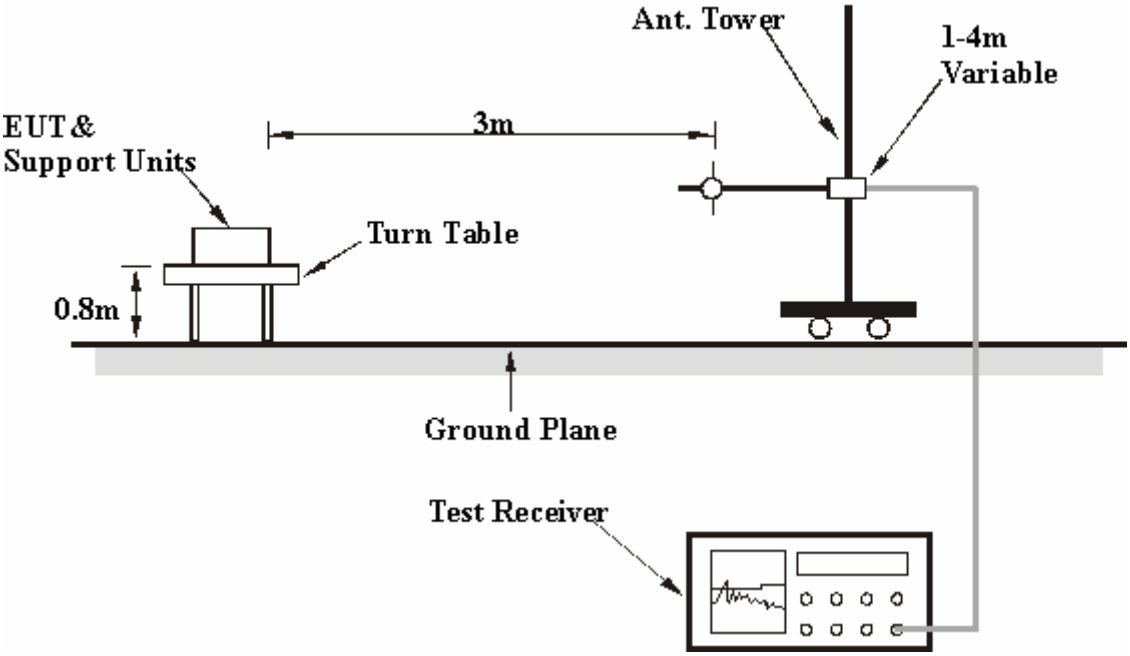
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection (PK) at frequency above 1GHz.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



For the actual test configuration, please refer to the related Item – Photographs of the Test Configuration.

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

4.2.7 TEST RESULTS

Below 1GHz Worst-Case Data

Mode A

EUT	2.4G wireless camera	**MODEL NO.**	AT202
CHANNEL	Channel 1	**FREQUENCY RANGE**	30 ~ 1000 MHz
MODULATION TYPE	FM	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
ENVIRONMENTAL CONDITIONS	20 deg. C, 65% RH, 1000 hPa	**DETECTOR FUNCTION**	Quasi-Peak
TESTED BY	Jeffrey		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Factor (dB/M)	Reading (dBuV/M)	Emission (dBuV/M)	Limit (dBuV/M)	Margin (dB)	Ant. Height (cm)	Table Angle (Deg.)
1	133.63	18.74	7.97	26.71	43.50	-16.79	231.00	68.00
2	152.73	20.06	6.70	26.76	43.50	-16.74	99.00	220.00
3	171.82	18.91	11.09	30.00	43.50	-13.50	182.00	308.00
4	200.45	15.79	15.86	31.65	43.50	-11.85	193.00	131.00
5	432.55	21.18	-7.00	14.18	46.00	-31.82	210.00	123.00
6	709.00	25.68	-7.01	18.66	46.00	-27.34	173.00	204.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Factor (dB/M)	Reading (dBuV/M)	Emission (dBuV/M)	Limit (dBuV/M)	Margin (dB)	Ant. Height (cm)	Table Angle (Deg.)
1	38.17	15.69	3.98	19.66	40.00	-20.34	101.00	282.00
2	104.99	13.06	14.40	27.46	43.50	-16.04	99.00	95.00
3	**133.63**	**15.67**	**20.88**	**36.55**	**43.50**	**-6.95**	**100.00**	**338.00**
4	152.73	17.00	15.62	32.62	43.50	-10.88	99.00	107.00
5	171.82	15.84	18.76	34.61	43.50	-8.89	99.00	82.00
6	527.25	21.46	-3.34	18.12	46.00	-27.88	101.00	164.00

NOTE: 1. Emission level (dBuV/m) =Raw Value (dBuV) + Correction Factor (dB)
2. Correction Factor (dB) = Antenna Factor (dB) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.

Mode B

EUT	2.4G wireless camera	**MODEL NO.**	AT202
CHANNEL	Channel 1	**FREQUENCY RANGE**	30 ~ 1000 MHz
MODULATION TYPE	FM	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
ENVIRONMENTAL CONDITIONS	20 deg. C, 65% RH, 1000 hPa	**DETECTOR FUNCTION**	Quasi-Peak
TESTED BY	Jeffrey		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Factor (dB/M)	Reading (dBuV/M)	Emission (dBuV/M)	Limit (dBuV/M)	Margin (dB)	Ant. Height (cm)	Table Angle (Deg.)
1	133.63	15.67	11.16	26.83	43.50	-16.67	219.00	142.00
2	152.73	17.00	13.25	30.25	43.50	-13.25	162.00	166.00
3	214.30	13.43	-5.81	7.62	43.50	-35.88	116.00	34.00
4	369.50	18.02	-5.62	12.39	46.00	-33.61	151.00	90.00
5	512.58	21.14	-5.16	15.97	46.00	-30.03	152.00	105.00
6	762.35	25.47	-5.78	19.69	46.00	-26.31	192.00	176.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Factor (dB/M)	Reading (dBuV/M)	Emission (dBuV/M)	Limit (dBuV/M)	Margin (dB)	Ant. Height (cm)	Table Angle (Deg.)
1	38.19	15.69	9.84	25.53	40.00	-14.47	100.00	297.00
2	133.63	15.67	24.23	39.90	43.50	-3.60	99.00	163.00
3	143.18	16.46	16.69	33.15	43.50	-10.35	100.00	157.00
4	**152.73**	**17.00**	**20.69**	**37.69**	**43.50**	**-5.81**	**99.00**	**143.00**
5	171.82	15.84	19.04	34.89	43.50	-8.61	99.00	134.00
6	575.62	22.63	-5.29	17.35	46.00	-28.65	99.00	191.00

NOTE: 1. Emission level (dBuV/m) =Raw Value (dBuV) + Correction Factor (dB)
2. Correction Factor (dB) = Antenna Factor (dB) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.

Above 1GHz Worst-Case Data

Mode A

EUT	2.4G wireless camera	**MODEL NO.**	AT202
CHANNEL	Channel 1	**FREQUENCY RANGE**	Above 1GHz
MODULATION TYPE	FM	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
ENVIRONMENTAL CONDITIONS	20 deg. C, 65% RH, 1000 hPa	**DETECTOR FUNCTION**	PK / AV: 1MHz
TESTED BY	REBECCA		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Factor (dB/M)	Reading (dBuV/M)	Emission (dBuV/M)	Limit (dBuV/M)	Margin (dB)	Ant. Height (cm)	Table Angle (Deg.)
*1	2414PK	32.71	33.71	66.41	114	-47.59	100	19
*1	2414AV	32.71	12.15	44.86	94	-49.14	100	19
2	4828PK	37.19	10.32	47.51	74	-26.49	100	0
2	4828AV	37.19	-0.04	37.15	54	-16.85	100	0
3	7242PK	43.84	10.83	54.68	74	-19.32	100	110
3	7242AV	43.84	-1.31	42.54	54	-11.46	100	110
4	9656PK	46.7	6.96	53.67	74	-20.33	100	123
4	9656AV	46.7	-3.67	43.03	54	-10.97	100	123
5	12070PK	47.68	10.16	57.84	74	-16.16	100	89
5	12070AV	47.68	-1.89	45.79	54	-8.21	100	89

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Factor (dB/M)	Reading (dBuV/M)	Emission (dBuV/M)	Limit (dBuV/M)	Margin (dB)	Ant. Height (cm)	Table Angle (Deg.)
*1	2414PK	32.71	38.89	71.6	114	-42.4	100	77
*1	2414AV	32.71	15.92	48.63	94	-45.37	100	77
2	4828PK	37.19	12.5	49.7	74	-24.3	100	68
2	4828AV	37.19	-0.02	37.18	54	-16.82	100	68
3	7242PK	43.84	10.38	54.22	74	-19.78	100	321
3	7242AV	43.84	-0.97	42.87	54	-11.13	100	321
4	9656PK	46.7	7.87	54.57	74	-19.43	100	344
4	9656AV	46.7	-3.55	43.15	54	-10.85	100	344
5	12070PK	47.68	9.35	57.03	74	-16.97	100	198
5	**12070AV**	**47.68**	**-1.81**	**45.87**	**54**	**-8.13**	**100**	**198**

NOTE: 1. Emission level (dBuV/m) =Raw Value (dBuV) + Correction Factor (dB)
2. Correction Factor (dB) = Antenna Factor (dB) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. "*" = Fundamental frequency
6. The other emission levels were very low against the limit.

EUT	2.4G wireless camera	**MODEL NO.**	AT202
CHANNEL	Channel 2	**FREQUENCY RANGE**	Above 1GHz
MODULATION TYPE	FM	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
ENVIRONMENTAL CONDITIONS	20 deg. C, 65% RH, 1000 hPa	**DETECTOR FUNCTION**	PK / AV: 1MHz
TESTED BY	REBECCA		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Factor (dB/M)	Reading (dBuV/M)	Emission (dBuV/M)	Limit (dBuV/M)	Margin (dB)	Ant. Height (cm)	Table Angle (Deg.)
*1	2432PK	32.72	30.8	63.52	114	-50.48	100	39
*1	2432AV	32.72	6.98	39.7	94	-54.3	100	39
2	4864PK	37.31	11.17	48.48	74	-25.52	100	6
2	4864AV	37.31	0.16	37.47	54	-16.53	100	6
3	7296PK	43.94	9.5	53.45	74	-20.55	100	128
3	7296AV	43.94	-1.26	42.69	54	-11.31	100	128
4	9728PK	46.78	8.15	54.93	74	-19.07	100	156
4	9728AV	46.78	-4.41	42.37	54	-11.63	100	156
5	12160PK	47.63	9.07	56.7	74	-17.3	100	133
5	12160AV	47.63	-2.16	45.47	54	-8.53	100	133

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Factor (dB/M)	Reading (dBuV/M)	Emission (dBuV/M)	Limit (dBuV/M)	Margin (dB)	Ant. Height (cm)	Table Angle (Deg.)
*1	2432PK	32.72	39.45	72.18	114	-41.82	100	88
*1	2432AV	32.72	15.48	48.2	94	-45.8	100	88
2	4864PK	37.31	11.23	48.55	74	-25.45	100	102
2	4864AV	37.31	0.32	37.63	54	-16.37	100	102
3	7296PK	43.94	9.55	53.49	74	-20.51	100	342
3	7296AV	43.94	-1.18	42.76	54	-11.24	100	342
4	9728PK	46.78	7.69	54.46	74	-19.54	100	351
4	9728AV	46.78	-4.36	42.41	54	-11.59	100	351
5	12160PK	47.63	8.75	56.38	74	-17.62	100	264
5	**12160AV**	**47.63**	**-1.9**	**45.73**	**54**	**-8.27**	**100**	**264**

NOTE: 1. Emission level (dBuV/m) =Raw Value (dBuV) + Correction Factor (dB)
2. Correction Factor (dB) = Antenna Factor (dB) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. "*" = Fundamental frequency
6. The other emission levels were very low against the limit.

EUT	2.4G wireless camera	**MODEL NO.**	AT202
CHANNEL	Channel 4	**FREQUENCY RANGE**	Above 1GHz
MODULATION TYPE	FM	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
ENVIRONMENTAL CONDITIONS	20 deg. C, 65% RH, 1000 hPa	**DETECTOR FUNCTION**	PK / AV: 1MHz
TESTED BY	REBECCA		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Factor (dB/M)	Reading (dBuV/M)	Emission (dBuV/M)	Limit (dBuV/M)	Margin (dB)	Ant. Height (cm)	Table Angle (Deg.)
*1	2468	32.73	32.98	65.71	114	-48.29	100	8
*1	2468	32.73	11.75	44.47	94	-49.53	100	8
2	4936	37.52	11.83	49.36	74	-24.64	100	77
2	4936	37.52	0.36	37.89	54	-16.11	100	77
3	7404	44.15	9.14	53.29	74	-20.71	100	168
3	7404	44.15	-1.96	42.19	54	-11.81	100	168
4	9872	46.8	7.58	54.38	74	-19.62	100	45
4	9872	46.8	-3.19	43.62	54	-10.38	100	45
5	12340	47.53	9.73	57.26	74	-16.74	100	332
5	12340	47.53	-1.47	46.06	54	-7.94	100	332

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Factor (dB/M)	Reading (dBuV/M)	Emission (dBuV/M)	Limit (dBuV/M)	Margin (dB)	Ant. Height (cm)	Table Angle (Deg.)
*1	2468	32.73	39.85	72.57	114	-41.43	100	74
*1	2468	32.73	15.84	48.56	94	-45.44	100	74
2	4936	37.52	14.71	52.23	74	-21.77	100	169
2	4936	37.52	0.74	38.26	54	-15.74	100	169
3	7404	44.15	9.78	53.93	74	-20.07	100	348
3	7404	44.15	-1.87	42.28	54	-11.72	100	348
4	9872	46.8	8.62	55.42	74	-18.58	100	221
4	9872	46.8	-3.08	43.72	54	-10.28	100	221
5	12340	47.53	10.61	58.14	74	-15.86	100	26
5	**12340**	**47.53**	**-1.31**	**46.22**	**54**	**-7.78**	**100**	**26**

NOTE: 1. Emission level (dBuV/m) =Raw Value (dBuV) + Correction Factor (dB)
2. Correction Factor (dB) = Antenna Factor (dB) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. “*” = Fundamental frequency
6. The other emission levels were very low against the limit.

4.3 BAND EDGES MEASUREMENT

4.3.1 LIMITS OF BAND EDGES MEASUREMENT

Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

4.3.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
SIGNAL ANALYZER Rohde & Schwarz	FSP30	E1S1002	May. 16. 2007

4.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set both RBW and VBW of spectrum analyzer to 100 kHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation.

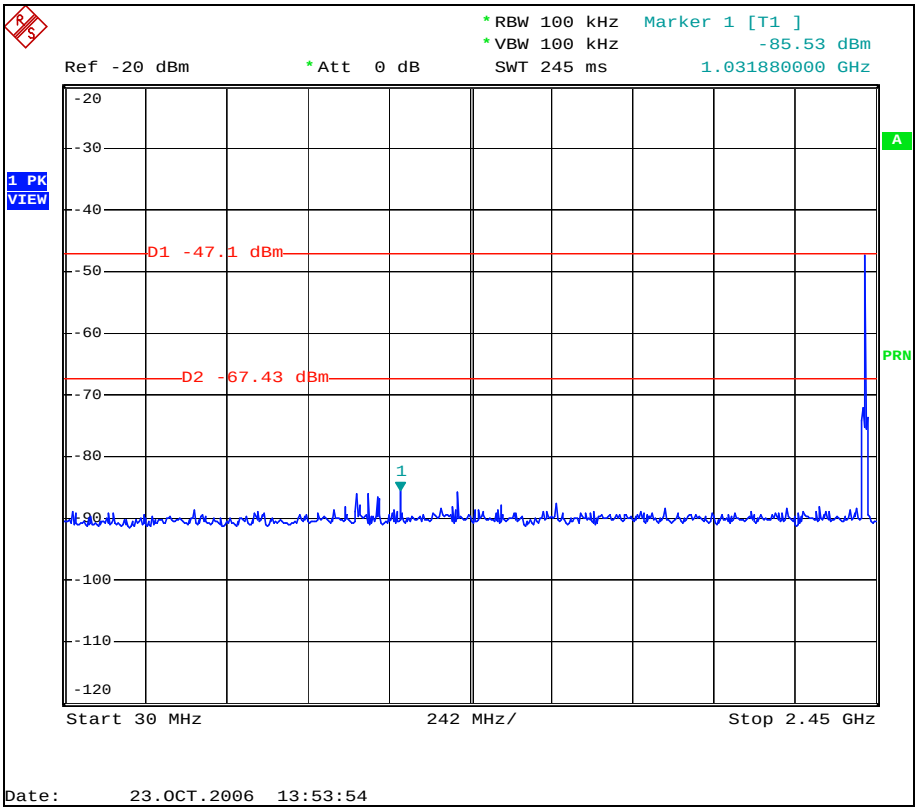
4.3.5 EUT OPERATING CONDITION

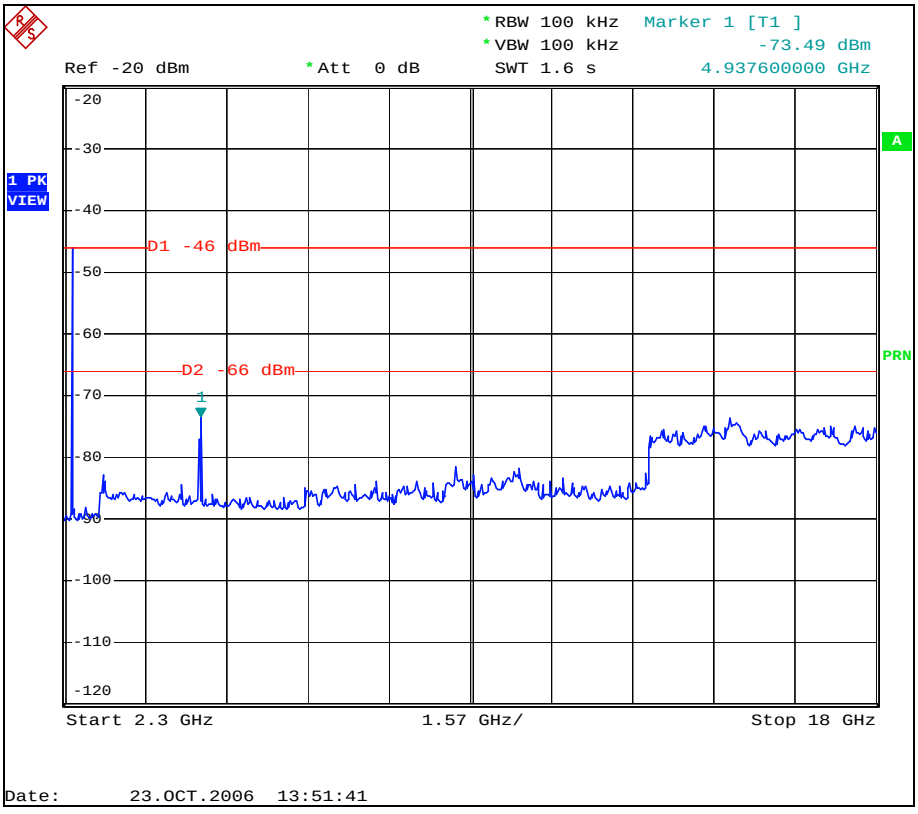
Enable the EUT to transmit data at lowest and highest channel frequencies individually.

4.3.6 TEST RESULTS

For Emissions outside of the specified frequency bands (Radiated), please refer to report section 4.2.7 which met the requirement of the general radiated emission limits in § 15.209.

For Emissions outside of the specified frequency bands (Conducted), the spectrum plots are attached on the following 2 plots. D2 line indicates the highest level, D1 line indicates the 20dB offset below D2. It shows compliance with the requirement in part 15.249.


*RBW 100 kHz
*VBW 100 kHz
Marker 1 [T1]
-85.53 dBm
1.031880000 GHz
Ref -20 dBm
*Att 0 dB
SWT 245 ms
1 PK VIEW
A
PRN
D1 -47.1 dBm
D2 -67.43 dBm
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
Start 30 MHz
242 MHz/
Stop 2.45 GHz
Date: 23.OCT.2006 13:53:54


*RBW 100 kHz
*VBW 100 kHz
Marker 1 [T1]
-73.49 dBm
4.937600000 GHz
Ref -20 dBm
*Att 0 dB
SWT 1.6 s
1 PK VIEW
A
PRN
D1 -46 dBm
D2 -66 dBm
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
Start 2.3 GHz
1.57 GHz/
Stop 18 GHz
Date: 23.OCT.2006 13:51:41

5 APPENDIX - INFORMATION ON THE TESTING LABORATORY

We, ADT (Shanghai) Corp., were founded in 2003 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

JAPAN	VCCI
USA	FCC, A2LA
Norway	DNV

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: www.cnadt.com
If you have any comments, please feel free to contact us at the following:

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