ETS Dr.Genz Taiwan PS Co., Ltd.

FCC Registration No.: 930600

Accredited Testing Laboratory

A2LA Cert.No.: 2300.01

TEST - REPORT

FCC RULES PART 15 / SUBPART C

FCC ID:LE2CCD-413S

Test report no.:

W6M20503-5716-C-1

FCC

ETS DR. GENZ TAIWAN PS CO., LTD
6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU, TAIPEI 114, TAIWAN, R.O.C.
PHONE 886-2-66068877 FAX 886-2-66068879

Registration number: W6M20503-5716-C-1
FCC ID: LE2CCD-413S

TABLE OF CONTENTS

Registration number: W6M20503-5716-C-1
FCC ID: LE2CCD-413S

1 General Information

1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.
The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.
Furthermore, there is no guarantee that a test sample which has Passed all the relevant tests conforms to a specification.
Neither is there any guarantee that such a test sample will interwork with other genuinely open systems.
The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that is performance generally conforms to representative cases of communications equipment.

The test results of this test report relate exclusively to the item tested as specified in 1.5.
The test report may only be reproduced or published in full.
Reproduction or publication of extracts from the report requires the prior written approval of the ETS DR. GENZ TAIWAN PS CO., LTD

Tester:

29.03.2005		Orville Chang	Orville Chang
Date	ETS-Lab.	Name	Signature

Technical responsibility for area of testing:

29.03.2005		Steven Chuang	Steven Chuang
Date	ETS	Name	Signature

Registration number: W6M20503-5716-C-1
FCC ID: LE2CCD-413S

1.2 Testing laboratory

1.2.1 Location

OATS
No.5-1, Shuang Sing Village,
LiShuei Rd., Wanli Township,
Taipei County 207, Taiwan (R.O.C.)

Company
ETS DR. GENZ TAIWAN PS CO., LTD.
6F, NO. 58, LANE 188, RUEY-KUANG RD.
NEIHU, TAIPEI 114, TAIWAN R.O.C.
Tel : 886-2-66068877
Fax : 886-2-66068879

1.2.2 Details of accreditation status

Accredited testing laboratory

A2LA-registration number: 2300.01

FCC filed test laboratory Reg. No. 930600

Industry Canada filed test laboratory Reg. No. IC 5679

1.3 Details of approval holder

Name:	JSW PACIFIC CORPORATION
Street:	3F-3, No. 700, Chung-Zheng Rd.
Town:	Chung Ho City, Taipei Hsien
Country:	TAIWAN, R.O.C.
Telephone:	+886-2-8227-8582 Ext 128
Fax:	+886-2-8227-8583
Contact	Mr. Lin Tsai Chen
Telephone:	+886-2-8227-8582 Ext 128

Registration number: W6M20503-5716-C-1
FCC ID: LE2CCD-413S

1.4 Application details

Date of receipt of application: 02.03.2005
Date of receipt of test item: 03.03.2005
Date of test: 03.03.2005 to 28.03.2005

1.5 Test item

Description of test item : Wireless PIR Camera

Type identification : CCD-413S

Serial number : Test sample without serial number

Transmitting frequency : 433.92 MHz

Operation mode : simplex

Transmitting mode : K1D

Voltage supply : 120 V AC

(If the device is using battery, please check if the device is tested under fresh battery condition.)

Highest clock frequency : 433.92 MHz

Antenna type : integral antenna

Photos : see Annex

Manufacturer:
(if applicable)

Name : -/-
Street : -/-
Town : -/-
Country : -/-

Additional information : --

Registration number: W6M20503-5716-C-1
FCC ID: LE2CCD-413S

1.6 Test standards

Technical standard : FCC RULES PART 15 (07/12/2004) / SUBPART B § 15.109/ SUBPART C § 15.203, § 15.209, § 15.231

2 Technical test

2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed. ☒

or

The deviations as specified in 2.5 were ascertained in the course of the tests performed. ☐

2.2 Test environment

Temperature	: 23 °C
Relative humidity content	: 20 ... 75 %
Air pressure	: 86 ... 103 kPa
Details of power supply	: 120 V AC

Registration number: W6M20503-5716-C-1
FCC ID: LE2CCD-413S

2.3 Test equipment utilized

No.	Test equipment	Type	Serial No.	Manufacturer	Next Cal. Date
ETSTW-CE 001	EMI TEST RECEIVER	ESHS10	842121/013	R&S	08.11.2005
ETSTW-CE 002	PREREULATOR MODE DC POWER SUPPLY				
ETSTW-CE 003	AC POWER SOURCE	APS-9102	D161137	GW	
ETSTW-CE 004	ZWEILEITER-V-NETZNACHBILDUNG TWO-LINE V-NETWORK	ESH3-Z5	840731/011	R&S	08.11.2006
ETSTW-CE 005	Line-Impedance Stabilisation Network	NNBM 8126D	137	Schwarzbeck	03.11.2006
ETSTW-CE 006	IMPULS-BEGRENZER PULSE LIMITER	ESH3-Z2	100226	R&S	10.11.2006
ETSTW-CE 007	SPECTRUM ANALYZER 5GHz	FSB	849670/001	R&S	
ETSTW-CE 008	ABSORBING CLAMP	MDS 21	3469	ABSORPTIONS-MESSWANDLER-ZANGE	04.11.2006
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	10.05.2005
ETSTW-CE 010	Comb Generator-conducted			ETS	
ETSTW-CE 011	Power Line Conducted Emission Only			ETS	
ETSTW-CS 001	SIGNAL GENERATOR	SMX	849254/003	R&S	31.10.2005
ETSTW-CS 002	COUPLING AND DECOUPLING NETWORK	CDN S751	19263	CHAFFNER	03.11.2006
ETSTW-CS 003	COUPLING AND DECOUPLING NETWORK	CDN T400	19820	CHAFFNER	03.11.2006
ETSTW-CS 004	COUPLING AND DECOUPLING NETWORK	CDN M016	20053	CHAFFNER	03.11.2006
ETSTW-CS 005	RF Power Amplifier	100A250A	306547	AR	03.11.2005
ETSTW-RE 001	2MHz SWEEP FUNCTION GENERATOR	EGC-3230	02050018	Escort	
ETSTW-RE 002	Function Generator	33220A	MY43004982	Agilent	03.11.2005
ETSTW-RE 003	EMI TEST RECEIVER	ESI	831438/001	R&S	16.11.2005
ETSTW-RE 004	EMI TEST RECEIVER	ESI	831459/012	R&S	09.11.2005
ETSTW-RE 005	EMI TEST RECEIVER	ESVS10	843207/020	R&S	01.11.2005
ETSTW-RE 006	HF-EICHLEITUNG RF STEP ATTENUATOR	DPSP	848220/003	R&S	
ETSTW-RE 007	HF-EICHLEITUNG RF STEP ATTENUATOR	DPSP	844581/024	R&S	
ETSTW-RE 008	Controller	HD100	C0100-L/047/ 6670703/L	Heinrich Deisel	
ETSTW-RE 009	Controller	HD100	100/341	Heinrich Deisel	
ETSTW-RE 010	PROGRAMMABLE LINEAR POWER SUPPLY	LPS-305	30503070181	MOTECH	
ETSTW-RE 011	PROGRAMMABLE LINEAR POWER SUPPLY	LPS-305	30503070165	MOTECH	
ETSTW-RE 012	TUNABLE BANDREJECT FILTER	D.C 0309	146	K&L	
ETSTW-RE 013	TUNABLE BANDREJECT FILTER	D.C 0036	397	K&L	
ETSTW-RE 014	DUAL TRACKING WITH 5V FIXED	GPC-3030D		GW	
ETSTW-RE 015	ANTENNA	HK116	841489/003	R&S	
ETSTW-RE 016	ANTENNA	HL223	848953/006	R&S	

Registration number: W6M20503-5716-C-1
FCC ID: LE2CCD-413S

ETSTW-RE 017	ANTENNA	HL025	352886/001	R&S	
ETSTW-RE 018	ANTENNA	AT4560	27212	AR	07.11.2006
ETSTW-RE 019	ANTENNA , HORN	22240-25	121074	FM	
ETSTW-RE 020	MICROWAVE HORN ANTENNA	AT4002A	306915	AR	
ETSTW-RE 021	SWEEP GENERATOR	SWM05	835130/010	R&S	10.11.2005
ETSTW-RE 022	AMPLIFIER	8447D	2944A09837	Agilent	01.11.2005
ETSTW-RE 023	Shielded room	SR 1		Frankonia	
ETSTW-RE 024	Anechoic Chamber	CHC 1		Frankonia	
ETSTW-RE 025	Anechoic Chamber	CHC 2		Frankonia	
ETSTW-RE 026	Open Area Test Site	10m		ETS	
ETSTW-RE 027	Passive Loop Antenna	6512	34563	EMCO	29.06.2006
ETSTW-RE 028	Log-Periodic DipoleArray Antenna	3148	34429	EMCO	14.06.2006
ETSTW-RE 029	Biconical Antenna	3109	33524	EMCO	16.06.2006
ETSTW-RE 030	Double-Ridged Waveguide Horm Antenna	3117	35224	EMCO	04.05.2006
ETSTW-RE 031	Comb Generator-radiated			ETS	
ETSTW-RE 032	Millivoltmeter	URV 55	849086/013	R&S	17.11.2005
ETSTW-RE 033	4CH 1GHz 5GS/s DSO	WAVERUNNER 6100A	LCRY0604P14508	LeCory	
ETSTW-RE 034	Power Sensor	URV5-Z4	839313/006	R&S	17.11.2005
ETSTW-RE 035	1.5GHz Active Voltage Probe	HFP1500	2332	LeCory	
ETSTW-RE 036	100MHz High Voltage Diff Probe	ADP305	3305	LeCory	
ETSTW-RE 037	Log-Periodic DipoleArray Antenna	3148	00034546	EMCO	17.11.2006
ETSTW-RE 038	Log-Periodic DipoleArray Antenna	3148	00034547	EMCO	17.11.2006
ETSTW-RE 039	Biconical Antenna	3110B	41760	EMCO	17.11.2006
ETSTW-RE 040	Biconical Antenna	3110B	41761	EMCO	17.11.2006
ETSTW-RE 041	Anechoic Chamber	CHC 3		Frankonia	
ETSTW-EMI 001	HARMONICS 1000	HAR1000-1P	93	EMC-PARTNER	17.11.2005
ETSTW-EMS 001	Clamp BASELSTRASSE 160 CH-4242 LAUFEN	CN-EFT1000	354	EMC-PARTNER	01.11.2005
ETSTW-EMS 002	Frequency Converter	YF-6020	0308014		
ETSTW-EMS 003	EMC Immunity Test System	TRA2000IN6	579	EMC-PARTNER	01.11.2005
ETSTW-EMS 004	ESD generator minizap	ESD2000	016	EMC-PARTNER	01.11.2005
ETSTW-EMS 005	Attenautor (50Ω)	VERI50	051	EMC-PARTNER	30.08.2006
ETSTW-EMS 006	Attenautor (1 KΩ)	VERI1K	019	EMC-PARTNER	20.10.2006
ETSTW-EMS 007	20GΩ Divider	ESD-VERI-V	021	EMC-PARTNER	16.03.2006
ETSTW-RS 001	14" COLOR VIDEO MONITOR	TP-1480HR	P009799	TOPICA	
ETSTW-RS 002	14" COLOR VIDEO MONITOR	TP-1480HR	P009814	TOPICA	
ETSTW-RS 003	AMPLIFIER RESEARCH	30S1G3	306933	AR	

Registration number: W6M20503-5716-C-1
FCC ID: LE2CCD-413S

ETSTW-RS 004	RF Power Amplifier	150W1000	307009	AR	18.11.2005
ETSTW-RS 005	Electric Field Probe Type 8.3	EMR-20	BN 2244/20	GW	03.09.2005
ETSTW-RS 006	SIGNAL GENERATOR	SML03	101551	R&S	15.11.2005
ETSTW-RS 007	AUDIO ANALYZER	UPA3	843458/029	R&S	15.11.2005
ETSTW-GSM 01	SIM Simulator	IT3	B2004-50106	ORGA Testsystems GmBh	
ETSTW-GSM 02	Universal Radio Communication Tester	CMU 200	103489	R&S	
	Parts of Anite SAT (6)E Platform Protocol Test System				
ETSTW-GSM 03	Agilent 8960 Test Set 1	E5515C	GB44052675	Agilent	07.14.06
ETSTW-GSM 04	Agilent 8960 Test Set 2	E5515C	GB44052665	Agilent	07.14.06
ETSTW-GSM 05	Agilent 8960 Test Set 3	E5515C	GB44052852	Agilent	07.17.06
ETSTW-GSM 06	Agilent 8960 Test Set 4	E5515C	GB44052984	Agilent	07.16.06
ETSTW-GSM 07	Agilent 8960 Test Set 5	E5515C	GB44052658	Agilent	07.14.06
ETSTW-GSM 08	Agilent 8960 Test Set 6	E5515C	GB44052666	Agilent	07.16.06
ETSTW-GSM 09	Controler PC	Dell GX 270	700F61J	Dell	
ETSTW-GSM 10	Combiner Wessex / Anite	B4605/100	053	Wessex / Anite	07.06
ETSTW-GSM 11	GSM 850,900,1800,1900 Test system	TS8950G		Rohde & Schwarz	11.05

2.4 General Test Procedure

POWER LINE CONDUCTED INTERFERENCE: The procedure used was ANSI STANDARD C63.4-2003 5.2 using a 50μH LISN (if necessary). Both lines were observed. The bandwidth of the spectrum analyzer was 10 kHz with an appropriate sweep speed.

RADIATION INTERFERENCE: The test procedure used was ANSI STANDARD C63.4-2003 6.4 using a spectrum analyzer. 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 bandwidth was the 100 kHz and the video bandwidth was 300 kHz. The ambient. temperature of the UUT was 23°C with a humidity of 40 %.

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 dBμV) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB.

Example:

Freq (MHz)	METER READING + ACF + CABLE LOSS (to the receiver) = FS
33	20 dBμV + 10.36 dB/m + 6 dB = 36.36 dBμV/m @3m

ANSI STANDARD C63.4-2003 6.2.1 MEASUREMENT PROCEDURES: The UUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m (non metallic table). The UUT was placed in the center of the table. The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to 10^{th} harmonic of the fundamental.

Peak readings were taken in three (3) orthogonal planes and the highest readings.
Measurements were made by ETS Dr. Genz Taiwan PS Co., Ltd. at the registered open field test site located at. The Registration Number: **930600**

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.

ANTENNA & GROUND:
This unit uses integral antenna. (see photo).

Registration number: W6M20503-5716-C-1
FCC ID: LE2CCD-413S

3 Test results (enclosure)

☒ 1st test ☐ test after modification ☐ production test

TEST CASE	Para. Number	Required	Test passed	Test failed
Transmission Requirements	FCC 15.231(a)	☒	☒	☐
Radiated Emission	FCC 15.231(b)	☒	☒	☐
Bandwidth of Emission	FCC 15.231(c)	☒	☒	☐
Frequency Tolerance	FCC 15.231(d)	☐	☐	☐
Period Alternate Field Strength Requirements	FCC 15.231(e)	☐	☐	☐
Antenna Requirement	FCC 15.203	☐	☐	☐
Radiated Emission from Receiver L.O.	FCC 15.109	☐	☐	☐
Radiated Emission from Digital Part	FCC 15.109	☐	☐	☐
Conducted Measurement at (AC) Power Line	FCC 15.207	☒	☒	☐

The follows is intended to leave blank.

Registration number: W6M20503-5716-C-1
FCC ID: LE2CCD-413S

3.1 Output Power (Field Strength)

Test condition		Transmitter field strength (dBµV/m)
T_{nom}= 23 °C	V_{nom} = 120V AC	58.89
Measurement uncertainty		< 3 dB

Limit 15.231(b)

Fundamental Frequency (MHz)	Field strength of fundamental, limit µV/m
40.66 – 40.40	2.250
70 – 130	1.250
130 – 174	1.250 to 3750
174 – 260	3.750
260 – 470	3.750 to 12.000** (433.92 MHz: 80.8 dBµV/m = 10.965 µV/m)
Above 470	12.000

** linear interpolation

Remarks: see attached diagrams
Test equipment used: ETSTW-RE 003, ETSTW-RE 012, ETSTW-RE 016, ETSTW-RE 024

Registration number: W6M20503-5716-C-1
FCC ID: LE2CCD-413S

3.2 Out of Band Radiated Emissions

FCC Rule: 15.231(b) , 15.35
For out of band emissions that are close to or that exceed the 20 dB attenuation requirement described in the specification, radiated measurements were performed at a 3 m separation distance to determine whether these emissions complied with the general radiated emission requirement.

Limits:
For frequencies below 1GHz :
Max permitted average Limits = Max. reading – 20 dB

80.80 dBµV/m- 20 dB= 60.80 dBµV/m

Guidance on Measurement of pulsed emission: 815.231 (b), §15.35(c)
"If the emission is pulsed, modify the unit for continues operation , use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation." Here the correction was added to the limit instead subtracted from the reading.

Duty Cycle correction = 20 log (dwell time/100ms)

For frequencies above 1GHz (Peak measurements).
Modified Limits for peak conform 15.35 (b) = Max Permitted average Limits + 20dB (because Peak detector is used)

80.80 dBµV/m

For frequencies above 1GHz (Average measurements).
Correction factor conform 15.35 (c) (Average measurements)
Duty cycle correction :
Max. reading – 20 dB – duty cycle correction:

No duty cycle correction was added to the reading

80.80 dBµV/m- 20 dB= 60.80 dBµV/m

Remarks: See attached diagrams.
Test equipment used: ETSTW-RE 003, ETSTW-RE 012, ETSTW-RE 024

Registration number: W6M20503-5716-C-1
FCC ID: LE2CCD-413S

3.3 Transmitter Radiated Emissions in restricted Bands

FCC Rules: 15.231 (b), 15.205, 15.209, 15.35
Radiated emission measurements were performed from 30 MHz to 8000 MHz.
For radiated emission tests, the analyzer setting was as followings:
RES BW VID BW
Frequency <1 GHz 100 kHz 100 kHz (Peak measurements)
Frequency >1 GHz 1 MHz 1 MHz (Peak measurements)
1 MHz 1 MHz (Average measurements)
Limits:

For frequencies below 1GHz :

Frequency of Emission (MHz)	Field strength (microvolts/meter)	Field Strength (dB microvolts/meter)
30 – 88	100	40.0
88 – 216	150	43.5
216 – 960	200	46.0
Above 960	500	54.0

For frequencies above 1GHz (Average measurements).
Guidance on Measurement of pulsed emission:
"If the emission is pulsed, modify the unit for continues operation , use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation.

For frequencies above 1GHz (Average measurements).

The correction factor, based on the channel dwell tine in a 100 ms period, may be mathematically applied to a measurement made with an average detector, to further reduce the value.

Duty cycle correction = 20 log (dwell time/100ms)
No duty cycle correction was added to the reading

Modified Limits for peak conform 15.35 (b) = Max Permitted average Limits + 20dB (because Peak detector is used)

Above 960 MHz
For mode DSSS CW: 54 dBµV/m + 20 dB = 74 dBµV/m

Remarks: See attached diagrams.

Test equipment used: ETSTW-RE 003, ETSTW-RE 012, ETSTW-RE 015, ETSTW-RE 016, ETSTW-RE 017, ETSTW-RE 024

3.4 Spurious Emission radiated, Transmitter

Spurious emission was measured with modulation (declared by manufacturer).

The limits on the field strength of the spurious emission in the table § 15.231(b) are based on the fundamental frequency of the intentional radiator. Spurious emission shall be attenuated to the average (or alternatively, CISPR quasi-peak) limits shown in this table or to the general limits shown in § 15.209, whichever limit permits a higher field strength.
In addition, radiated emission which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

SAMPLE CALCULATION OF LIMIT. All results will be updated by an automatic measuring system in accordance to point 2.3.

Calculation of test results:

Such factors like antenna correction, cable loss, external attenuation etc. are already included in the provided measurement results. This is done by using validated test software and calibrated test system according the accreditation requirements.

The peak and average spurious emission plots was measured with the average limits.
In the Table being listed the critical peak and average value an exhibit the compliance with the above calculated Limits.

Summary table with radiated data of the test plots

Freq,	Used Ch,	Frequency Marker [MHz]	Polari-zation	corrections dB	Corrected Reading [dBuV/m]	Compliance Limit [dBuV/m]	Detec-tor	BW [MHz]	Margin
1		46.012	H		19.00	60.62	PK	0.1	41.62
1		46.012	V		30.70	60.62	PK	0.1	29.92
1		107.335	H		25.18	60.62	PK	0.1	35.44
1		107.335	V		32.67	60.62	PK	0.1	27.95
1		126.072	H		31.14	43.50	PK	0.1	12.36
1		126.072	V		30.46	43.50	PK	0.1	13.04
1		189.098	H		36.53	60.62	PK	0.1	24.09
1		189.098	V		30.55	60.62	PK	0.1	30.07
2		262.525	H		27.75	46.00	PK	0.1	18.25
2		262.525	V		28.18	46.00	PK	0.1	17.82
2		868.537	H		50.17	60.62	PK	0.1	10.45
2		868.537	V		56.25	60.62	PK	0.1	4.37
3		1306.613	H		32.33	54.00	PK	0.1	21.67
3		1306.613	V		32.64	54.00	PK	0.1	21.36
3		1733.467	H		35.51	60.62	PK	0.1	25.11
3		1733.467	V		39.92	60.62	PK	0.1	20.70

Registration number: W6M20503-5716-C-1
FCC ID: LE2CCD-413S

Freq. – Frequency Range:

1:	30	-	200 MHz
2:	200	-	1000MHz
3:	1	-	4 GHz
4:	4	-	8 GHz

All other not noted test plots do not contain significant test results in relation to the limits
Test results: The unit meet the FCC requirements.

Comment: See attached diagrams.

Test equipment used: ETSTW-RE 003, ETSTW-RE 012, ETSTW-RE 015, ETSTW-RE 016, ETSTW-RE 017, ETSTW-RE 024

Registration number: W6M20503-5716-C-1
FCC ID: LE2CCD-413S

3.5 Channel Bandwidth

Measurement of Necessary Bandwidth (BN)

Used frequency	Bandwidth	Limit
434.03744990 MHz	34.1933 kHz	1.0828 MHz
Measurement uncertainty	< 10 Hz	

Remarks: The bandwidth fulfills the requirements of FCC § 15.231,
see attached diagrams

Limits:

The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.

Test equipment used: ETSTW-RE 003, ETSTW-RE 012

Registration number: W6M20503-5716-C-1
FCC ID: LE2CCD-413S

3.6 Spurious Emission radiated, Receiver

Frequency (MHz)	E-field field strength limit dBµV/m
30 – 88	--
88 – 216	--
216 – 960	--
Above 960	--
Measurement uncertainty	< 3 dB

Limits:

Frequency (MHz)	E-field field strength limit dBµV/m
30 – 88	40.00
88 – 216	43.52
216 – 960	46.02
Above 960	53.98 (73.98 dBµV/m 20 dB peak detector)

Above 960 MHz: limit line 74 dBµV/m 20 dB peak detector

Remarks: not required

Test equipment used: ETSTW-RE 003, ETSTW-RE 012, ETSTW-RE 015, ETSTW-RE 016, ETSTW-RE 017, ETSTW-RE 024

Registration number: W6M20503-5716-C-1
FCC ID: LE2CCD-413S

3.7 Conducted Measurement at (AC) Power Line

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the table bellows with this provision shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminals.

This measurement was transact first with instrumentation using an average and peak detector and a 10 kHz bandwidth. If the peak detector achieves a calculated level, the measurement is repeated by an instrumentation using a quasi-peak detector.

Frequency	Level	
	quasi-peak	average
150 kHz	dBµV/m	dBµV/m

Limits:

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi Peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

Test equipment used: ETSTW-CE 004, ETSTW-CE 001, ETSTW-RE 023

Comment: See attached diagrams.

Registration number: W6M20503-5716-C-1
FCC ID: LE2CCD-413S

Appendix

A Output Power
B Spurious Emissions radiated
C Bandwidth
D Power Line Conducted Emission
E Pictures

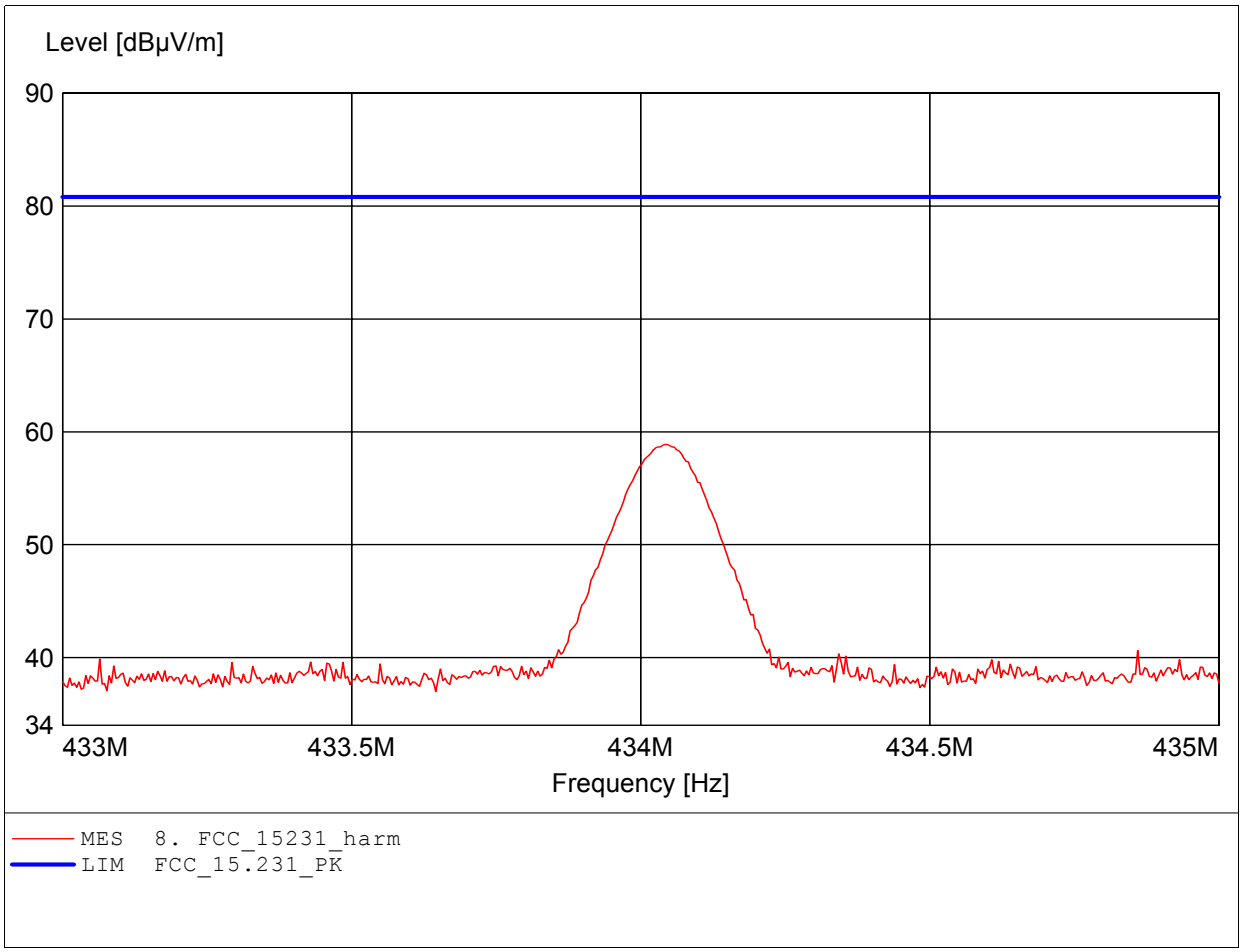
Appendix A

Output Power

Field Strength of Fundamental

FCC RULES PART 15, SUBPART C

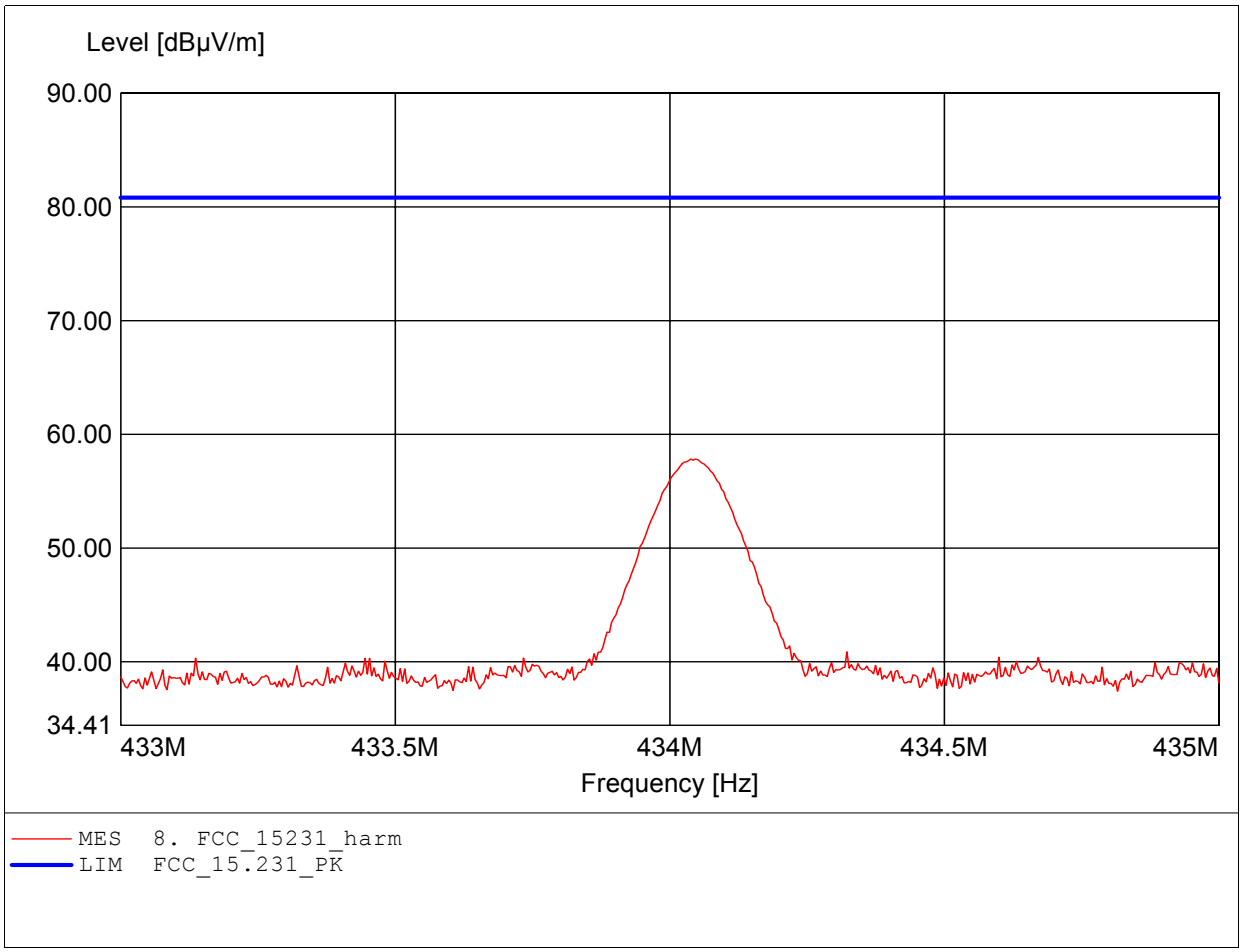
EUT:	Wireless PIR Camera
MODEL NO.:	CCD-413S
Approval Holder:	JSW PACIFIC CORPORATION
Test Site / Operator:	ETS / Orville Chang
Temperature/Voltage:	Temp.: 23°C/ Unom.: 120 VAC (ac / dc Adaptor)
Test Specification:	according to Section15.231
Comment 1:	Dist.: 3m, Ant.: HL223
	Freq: 434.042MHz, Emax: 58.89dBµV/m, RBW: 100kHz



Field Strength of Fundamental

FCC RULES PART 15, SUBPART C

EUT:	Wireless PIR Camera
MODEL NO.:	CCD-413S
Approval Holder:	JSW PACIFIC CORPORATION
Test Site / Operator:	ETS / Orville Chang
Temperature/Voltage:	Temp.: 23°C/ Unom.: 120 VAC (ac / dc Adaptor)
Test Specification:	according to Section15.231
Comment 1:	Dist.: 3m, Ant.: HL223
	Freq: 434.038MHz, Emax: 57.82dBµV/m, RBW: 100kHz



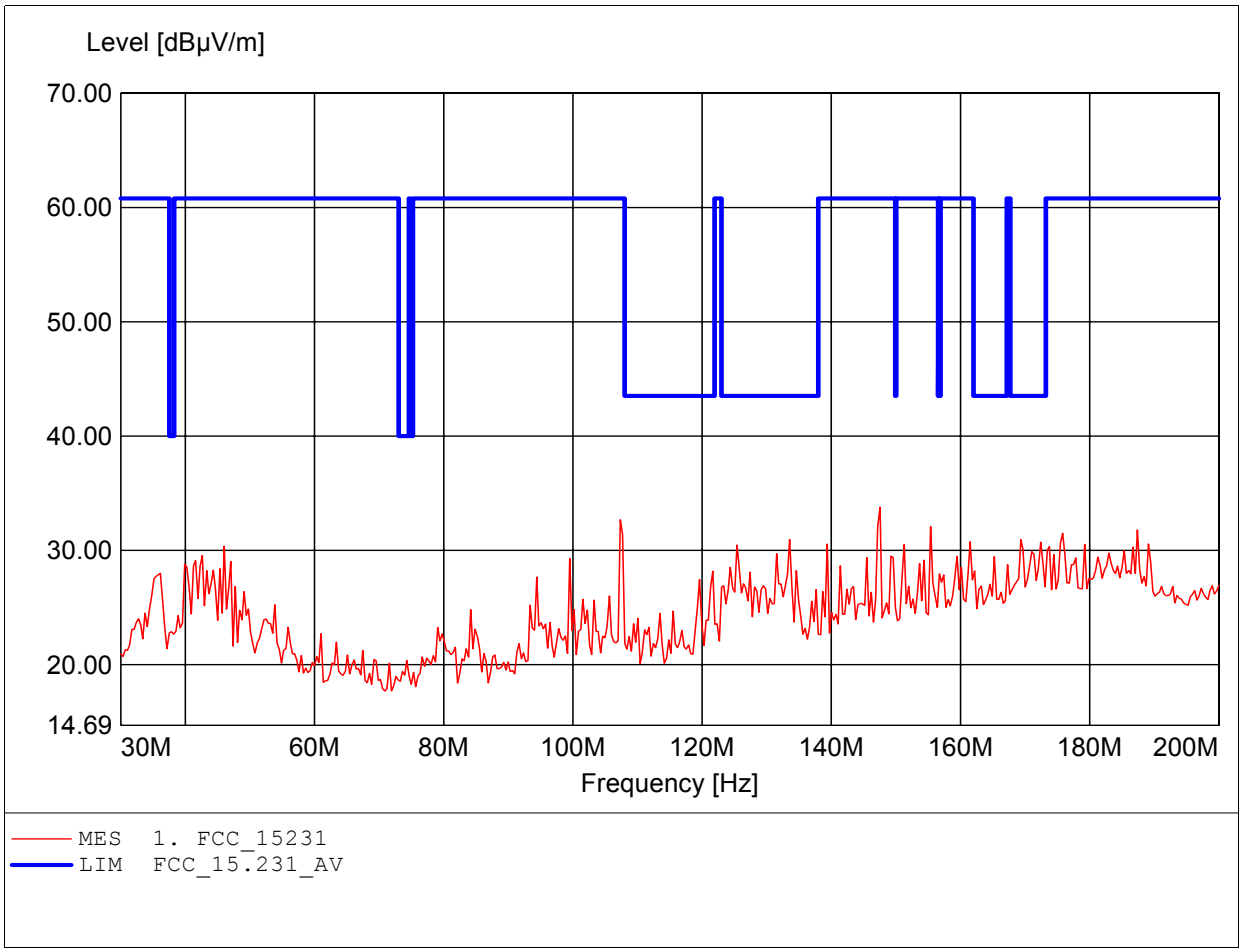
Appendix B

Spurious Emissions radiated

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

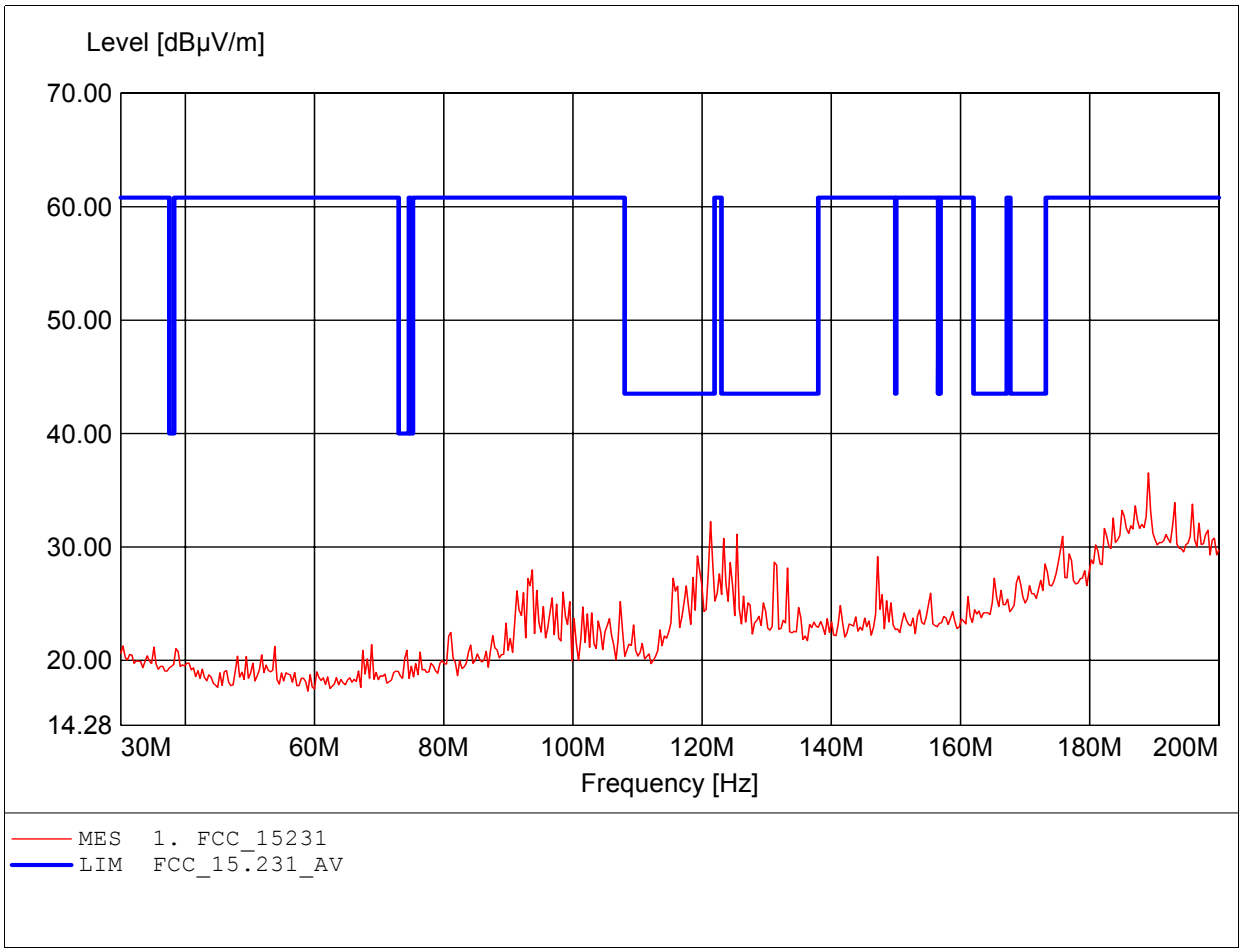
EUT:	Wireless PIR Camera
MODEL NO.:	CCD-413S
Approval Holder:	JSW PACIFIC CORPORATION
Test Site / Operator:	ETS / Orville Chang
Temperature/Voltage:	Temp.: 23°C/ Unom.: 120 VAC (ac / dc Adaptor)
Test Specification:	according to Section15.231
Comment 1:	Dist.: 3m, Ant.: HK 116
	Freq: 147.535MHz, Emax: 33.78dBµV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

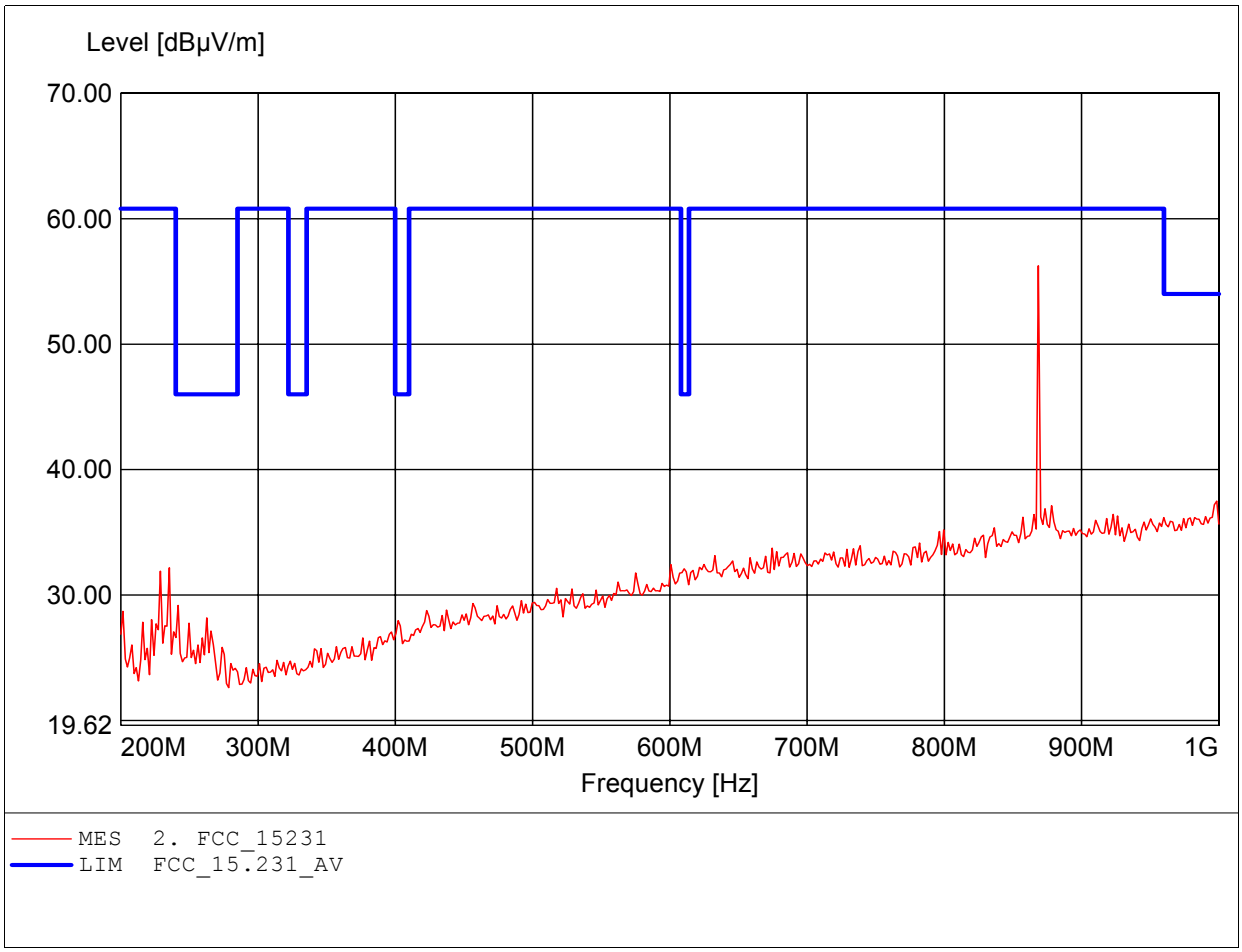
EUT:	Wireless PIR Camera
MODEL NO.:	CCD-413S
Approval Holder:	JSW PACIFIC CORPORATION
Test Site / Operator:	ETS / Orville Chang
Temperature/Voltage:	Temp.: 23°C/ Unom.: 120 VAC (ac / dc Adaptor)
Test Specification:	according to Section15.231
Comment 1:	Dist.: 3m, Ant.: HK 116
	Freq: 189.098MHz, Emax: 36.53dBµV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

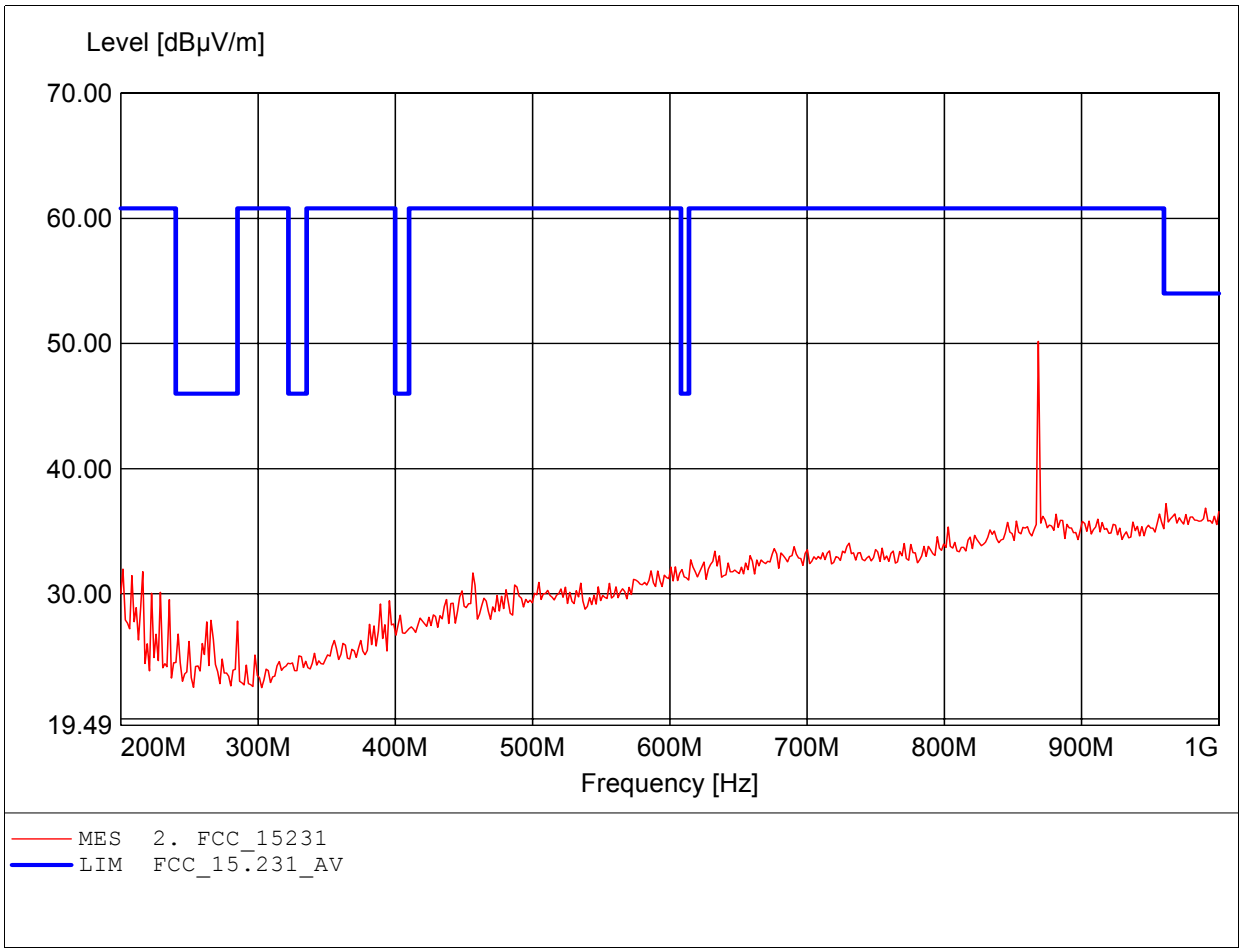
EUT:	Wireless PIR Camera
MODEL NO.:	CCD-413S
Approval Holder:	JSW PACIFIC CORPORATION
Test Site / Operator:	ETS / Orville Chang
Temperature/Voltage:	Temp.: 23°C/ Unom.: 120 VAC (ac / dc Adaptor)
Test Specification:	according to Section15.231
Comment 1:	Dist.: 3m, Ant.: HL 223, amplif.
	Freq: 868.537MHz, Emax: 56.25dBµV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

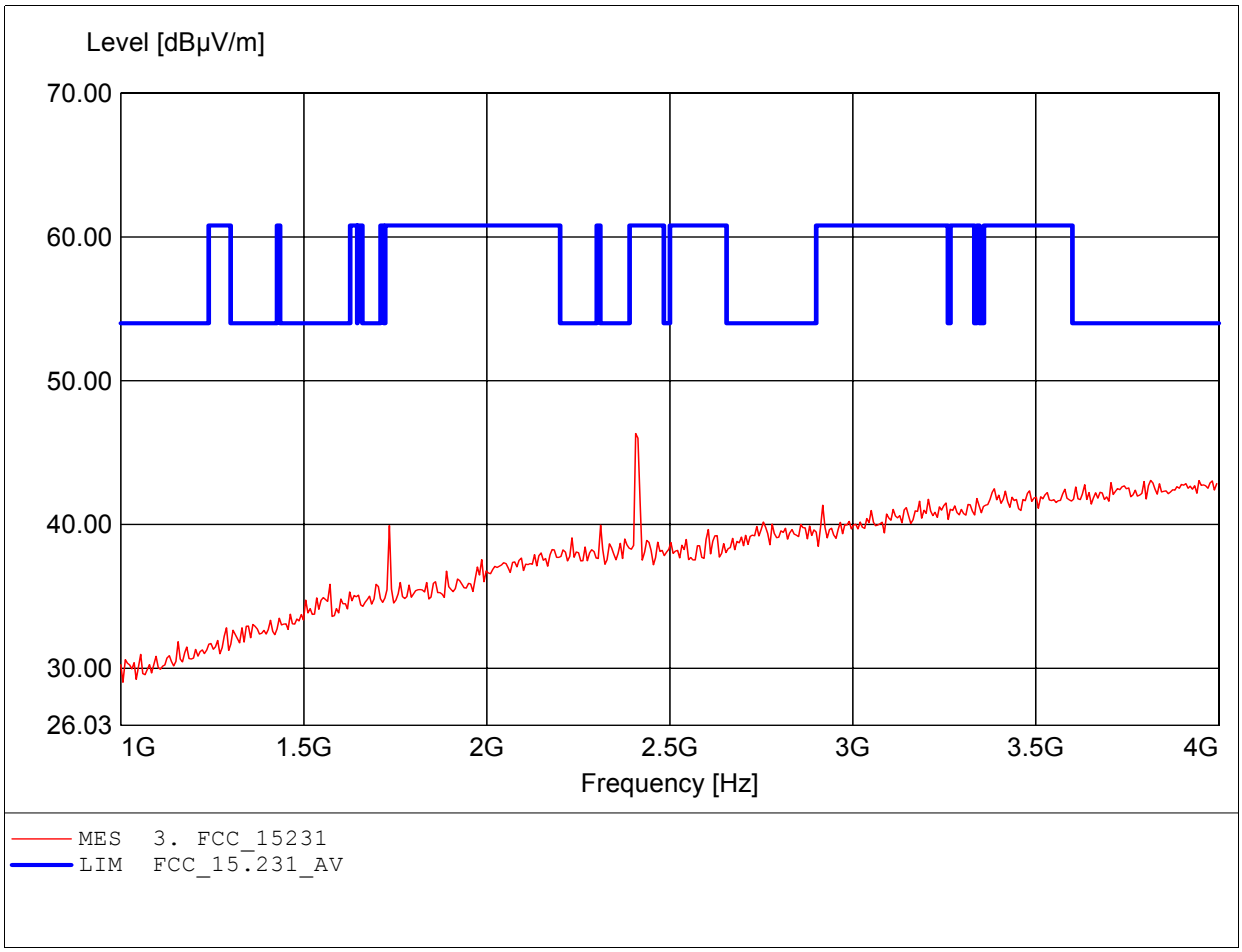
EUT:	Wireless PIR Camera
MODEL NO.:	CCD-413S
Approval Holder:	JSW PACIFIC CORPORATION
Test Site / Operator:	ETS / Orville Chang
Temperature/Voltage:	Temp.: 23°C/ Unom.: 120 VAC (ac / dc Adaptor)
Test Specification:	according to Section15.231
Comment 1:	Dist.: 3m, Ant.: HL 223, amplif.
	Freq: 868.537MHz, Emax: 50.17dBµV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

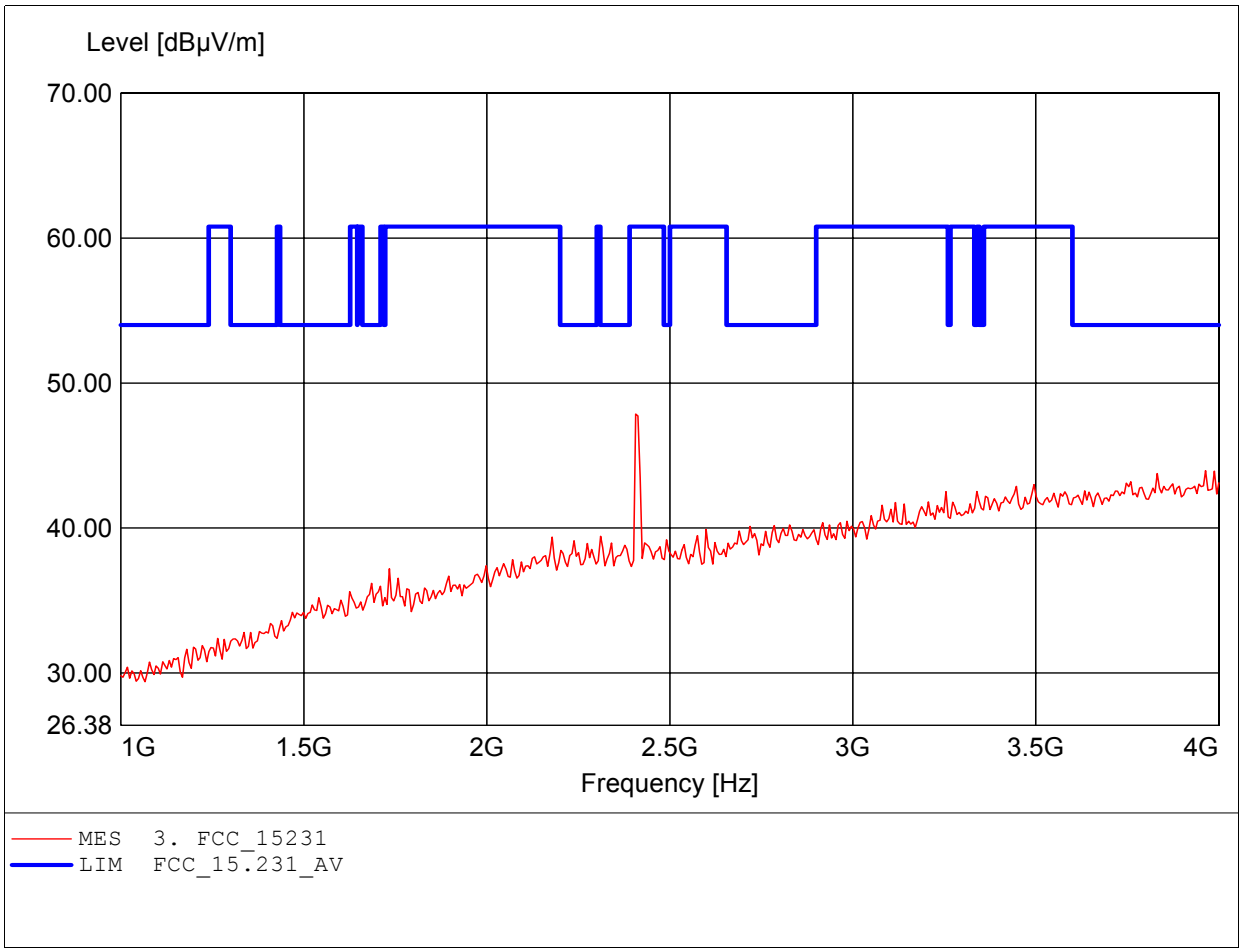
EUT:	Wireless PIR Camera
MODEL NO.:	CCD-413S
Approval Holder:	JSW PACIFIC CORPORATION
Test Site / Operator:	ETS / Orville Chang
Temperature/Voltage:	Temp.: 23°C/ Unom.: 120 VAC (ac / dc Adaptor)
Test Specification:	according to Section 15.231, peak detector
Comment 1:	Dist.: 3m, Ant.: HL025, amplif.
	Freq: 2.407GHz, Emax: 46.33dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

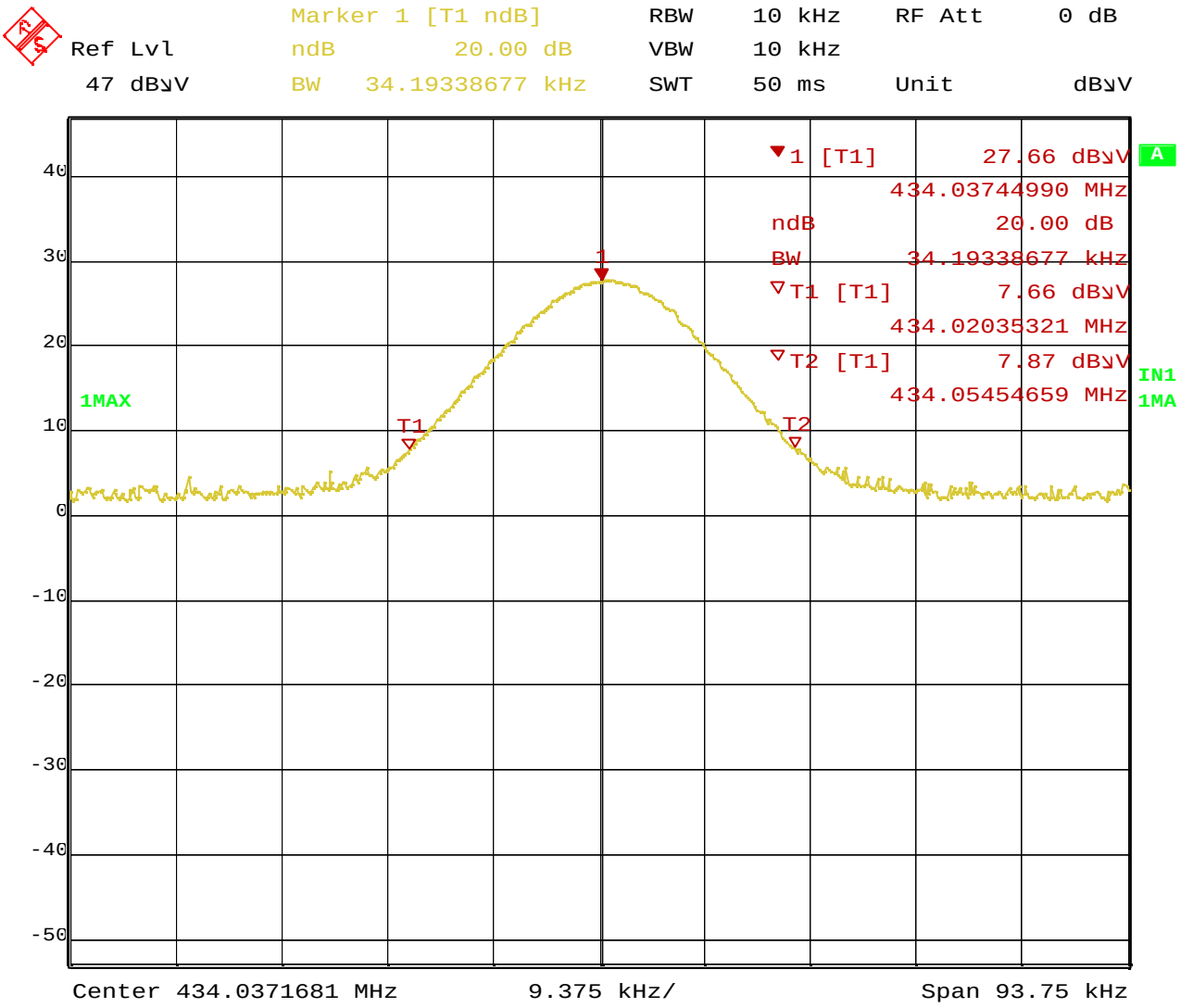
EUT:	Wireless PIR Camera
MODEL NO.:	CCD-413S
Approval Holder:	JSW PACIFIC CORPORATION
Test Site / Operator:	ETS / Orville Chang
Temperature/Voltage:	Temp.: 23°C/ Unom.: 120 VAC (ac / dc Adaptor)
Test Specification:	according to Section 15.231, peak detector
Comment 1:	Dist.: 3m, Ant.: HL025, amplif.
	Freq: 2.407GHz, Emax: 47.87dBµV/m, RBW: 1MHz



Registration number: W6M20503-5716-C-1
FCC ID: LE2CCD-413S

Appendix C

Bandwidth



Title: 20dB BANDWIDTH
Comment A: JSW PACIFIC CORPORATION
Date: 28.MAR.2005 10:09:59

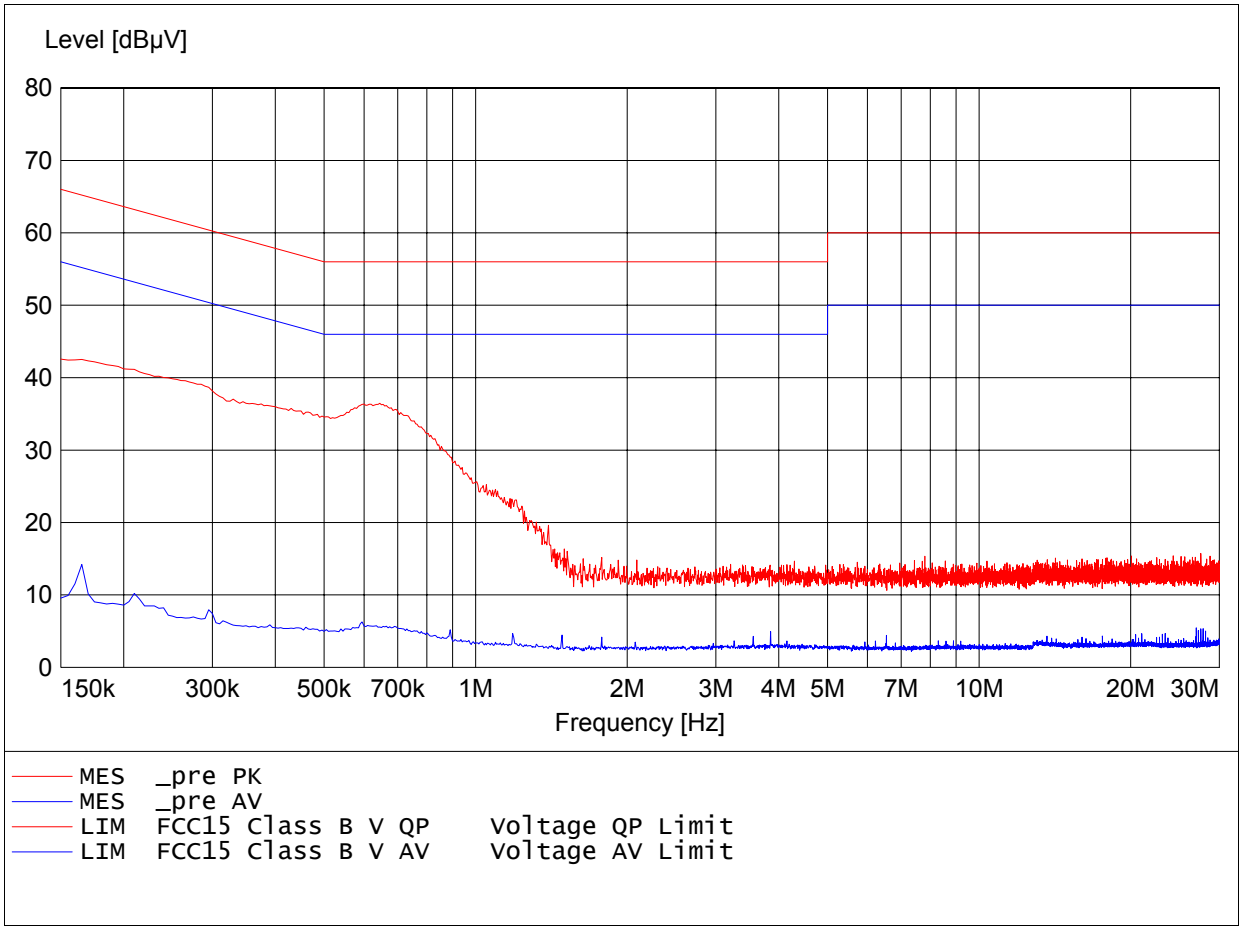
Appendix D

Power Line Conducted Emission

EMI voltage test in the ac-mains according to FCC Part 15

Class B

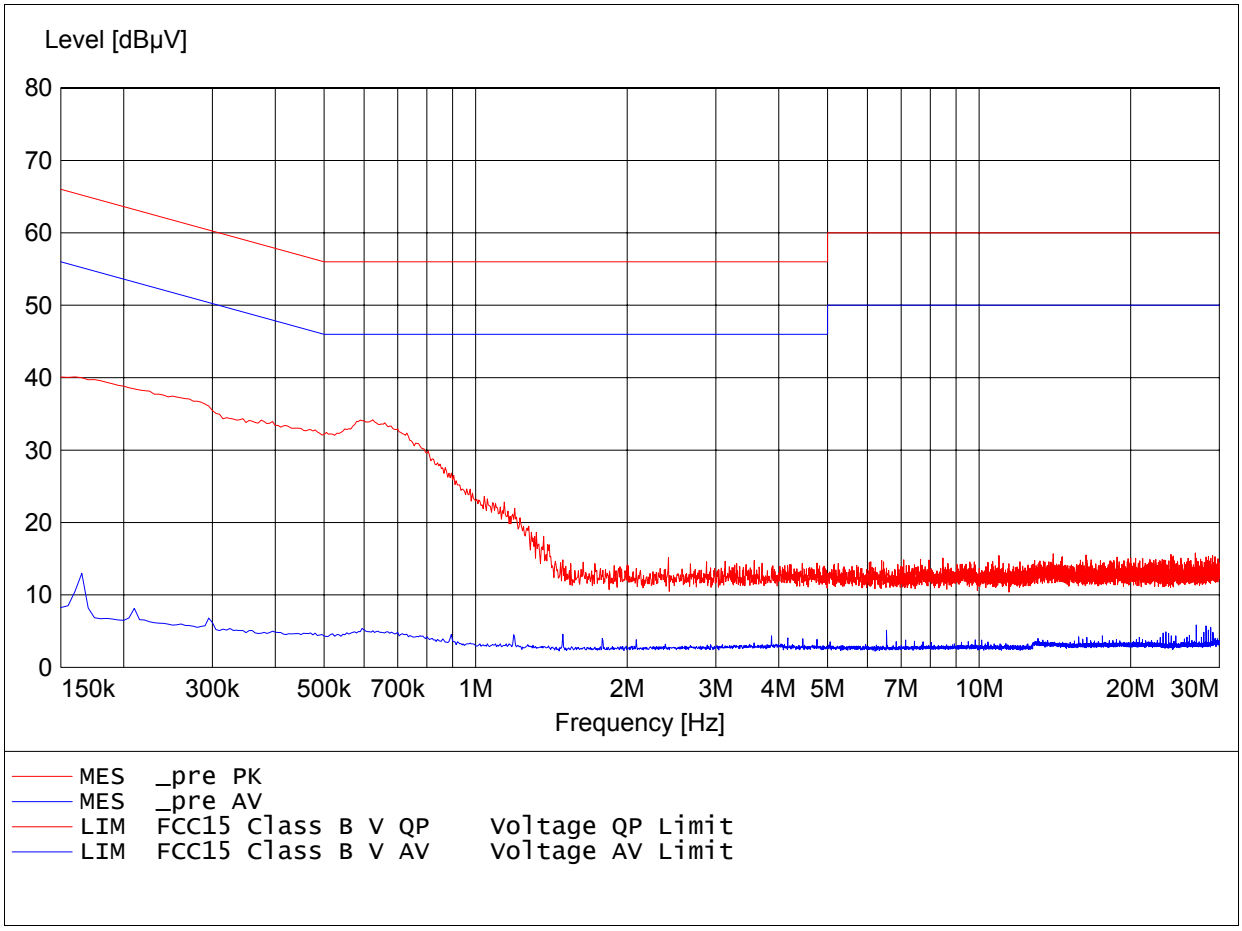
EUT: Wireless PIR Camera
Manufacturer: JSW PACIFIC CORPORATION
Operating Condition: Unom: 120 VAC (ac/dc adaptor) , Tnom: 23°C
Test Site: ETS
Operator: Catey
Test Specification: V-network: ESH3-Z5 N
Comment: model: CCD-413S mode: active



EMI voltage test in the ac-mains according to FCC Part 15

Class B

EUT: Wireless PIR Camera
Manufacturer: JSW PACIFIC CORPORATION
Operating Condition: Unom: 120 VAC (ac/dc adaptor) , Tnom: 23°C
Test Site: ETS
Operator: Catey
Test Specification: V-network: ESH3-Z5 L1
Comment: model: CCD-413S mode: active



Appendix E

Picture