



**FCC 47 CFR PART 15 SUBPART B AND ANSI C63.4:2003  
IC ICES-003 Issue 4  
TEST REPORT**

**For**

**IP Cam**

**Model : B7210**

**Trade Name : ZAVIO**

**Issued for**

**ZAVIO Inc.**

**2F, No.13, R&D Rd.II, Science Based Industrial Park,  
Hsinchu, Taiwan**

**Issued by**

**Compliance Certification Services Inc.  
Hsinchu Lab.**

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**Issued Date: January 03, 2012**



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## Revision History

<b>Rev.</b>	<b>Issue Date</b>	<b>Revisions</b>	<b>Effect Page</b>	<b>Revised By</b>
00	01/03/2012	Initial Issue	All Page 25	Cindy Pon



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### 1. TEST REPORT CERTIFICATION

**Applicant** : ZAVIO Inc.  
**Address** : 2F, No.13, R&D Rd.II, Science Based Industrial Park,  
Hsinchu, Taiwan  
**Equipment Under Test** : IP Cam  
**Model** : B7210  
**Trade Name** : ZAVIO  
**Tested Date** : December 21, 2011 ~ January 02, 2012

APPLICABLE STANDARD		
Standard	Item	Test Result
FCC Part 15 Subpart B, CLASS A AND	Radiated Emission	PASS
ANSI C63.4:2003 IC ICES-003 Issue 4	Conducted Emission	PASS

WE HEREBY CERTIFY THAT: The above equipment has been tested by Compliance Certification Services Inc., and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

**Approved by:**

Sb. Lu  
Sr. Engineer

**Reviewed by:**

Gundam Lin  
Sr. Engineer



## 2. EUT DESCRIPTION

<b>Product Name</b>	IP Cam
<b>Model Number</b>	B7210
<b>Identify Number</b>	T111221S01
<b>Received Date</b>	December 21, 2011
<b>Power Rating</b>	12Vdc
<b>Test Voltage</b>	120Vac, 60Hz
<b>DC Power Cable Type</b>	Non-shielded cable, 1.5m (Non-detachable)
<b>I/O Port</b>	Power Port x 1, Video Out Port x 1, RJ-45 Port x 1, Micro SD Port x 1, DI/DO Port x 2

### Power Adapter :

No.	Manufacturer	Model No.	Power Input	Power Output
1	DVE	DSA-20CA-12 120150	100-240Vac, 50/60Hz, 0.8A	12Vdc, 1.5A

*Remark : For more details, please refer to the User's manual of the EUT.*

## 3. DESCRIPTION OF TEST MODES

1. The following test modes were scanned during the preliminary test:

No.	Pre-Test Mode
1	Normal Operating / Power Adapter
2	Normal Operating / PoE Mode

2. After the preliminary scan, the following test mode was found to produce the highest emission level.

Final Test Mode		
Emission	Radiated Emission	Normal Operating / Power Adapter
		Normal Operating / PoE Mode
	Conducted Emission	Normal Operating / Power Adapter

*Remark : Then, the above highest emission mode of the configuration of the EUT and cable was chosen for all final test items.*



## **4. TEST METHODOLOGY**

The tests documented in this report were performed in accordance with ANSI C63.4:2003 and FCC CFR 47 Part 15 Subpart B, IC ICES-003 Issue 4.

## **5. FACILITIES AND ACCREDITATION**

### **5.1 FACILITIES**

All measurement facilities used to collect the measurement data are located at

NO. 989-1 Wen Shan Rd., Shang Shan Village,  
Qionglin Shiang Hsinchu County 30741, Taiwan, R.O.C

The sites are constructed in conformance with the requirements of ANSI C63.4:2003 and CISPR 22. All receiving equipment conforms to CISPR 16-1-1, CISPR 16-1-2, CISPR 16-1-3, CISPR 16-1-4, CISPR 16-1-5.

### **5.2 ACCREDITATIONS**

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

<b>Taiwan</b>	TAF
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The measuring facility of laboratories has been authorized or registered by the following approval agencies.

<b>Canada</b>	INDUSTRY CANADA
<b>Japan</b>	VCCI
<b>Taiwan</b>	BSMI
<b>USA</b>	FCC MRA

Copies of granted accreditation certificates are available for downloading from our web site, <http://www.ccsrf.com>



### 5.3 MEASUREMENT UNCERTAINTY

The following table is for the measurement uncertainty, which is calculated as per the document CISPR 16-4-2.

PARAMETER	UNCERTAINTY
Open Area Test Site (OATS No.3) / Radiated Emission, 30 to 1000 MHz	+/- 3.7199
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 30 to 1000 MHz	+/- 3.5189
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 1 to 18GHz	+/- 2.5164
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 18 to 26 GHz	+/- 2.4967
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 26 to 40 GHz	+/- 2.7655
Conducted Emission (Mains Terminals), 9kHz to 30MHz	+/- 1.5923

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=2$ .

Consistent with industry standard (e.g. CISPR 22: 2006, clause 11, Measurement Uncertainty) determining compliance with the limits shall be based on the results of the compliance measurement. Consequently the measured emissions being less than the maximum allowed emission result in this being a compliant test or passing test.

The acceptable measurement uncertainty value without requiring revision of the compliance statement is based on conducted and radiated emissions being less than  $U_{CISPR}$  which is 3.6dB and 5.2dB respectively. CCS values (called  $U_{Lab}$  in CISPR 16-4-2) is less than  $U_{CISPR}$  as shown in the table above. Therefore, MU need not be considered for compliance.



## 6. SETUP OF EQUIPMENT UNDER TEST

### SUPPORT EQUIPMENT

No.	Product	Manufacturer	Model No.	Serial No.	FCC ID
1	Notebook PC	HP	ProBook 4421s	CNF03242PM	-----
2	LCD Monitor	DELL	2407WFPb	CN-0FC255-46633-6CP-06JS	-----
3	LCD Monitor	ViewSonic	VS10563-1M	PQ3053205218	DoC
4	8-poer fast Ethernet PoE Switch	Air Live	POE-FSH804	POEF80411700328	-----
5	Micro SD Card	SanDisk	2GB	-----	-----

No.	Signal Cable Description
1	Non-shielded RJ45 cable, 10m x 1
2	Non-shielded Video cable, 3m x 1

### SETUP DIAGRAM FOR TESTS

EUT & peripherals setup diagram is shown in appendix setup photos.

### EUT OPERATING CONDITION

All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

#### **Normal Operating**

Power Adapter:

1. Setup whole system for test as shown on diagram
2. Notebook PC ping 192.168.1.149 to EUT
3. Video output to LCD MONITOR.
4. All of the functions are under run.
5. Start test.

PoE Mode:

1. Remove AC power adapter from EUT.
2. RJ-45 cable linking to PoE ethernet switch.
3. Notebook PC ping 192.168.1.149 to EUT with PoE ethernet switch.
4. Video output to LCD monitor.
5. All of the functions are under run.
6. Start test.



### 7. EMISSION TEST

#### 7.1 RADIATED EMISSION

##### LIMITS

(1) For Frequency Below 1GHz

47 CFR Part 15 Subpart B Section 15.109 (a) (b)

Frequency (MHz)	Class A			Class B		
	Field Strength (µV/m)	Field Strength (dBµV/m)	Distance (meters)	Field Strength (µV/m)	Field Strength (dBµV/m)	Distance (meters)
30 - 88	90	39.1	10	100	40.0	3
88 - 216	150	43.5	10	150	43.5	3
216 - 960	210	46.4	10	200	46.0	3
Above 960	300	49.5	10	500	54.0	3

CISPR 22 (According to 47 CFR Part 15 Subpart B Section 15.109 (g))

Frequency (MHz)	Field Strengths (dBµV/m)		Distance (meters)
	Class A	Class B	
30 - 230	40	30	10
230 - 1000	47	37	10

(2) For Frequency Above 1GHz (According to 47 CFR Part 15 Subpart B Section 15.109)

Frequency (GHz)	Field Strength (dBµV/m)				Distance (meters)
	Class A		Class B		
	Peak	Average	Peak	Average	
Above 1GHz	80	60	74	54	3

(3) Frequency Range of Radiated Measurement (For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5 <sup>th</sup> harmonic of the highest frequency or 40GHz, whichever is lower

**TEST EQUIPMENT****Radiated Emission below 1GHz / OATS3**

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Bi-log Antenna	SCHAFFER	CBL6112B	2696	10/03/2012
EMI Test Receiver	ROHDE & SCHWARZ	ESCI	101131	01/13/2012

*Remark: Each piece of equipment is scheduled for calibration once a year.*

**Radiated Emission above 1GHz / 966Chamber\_B**

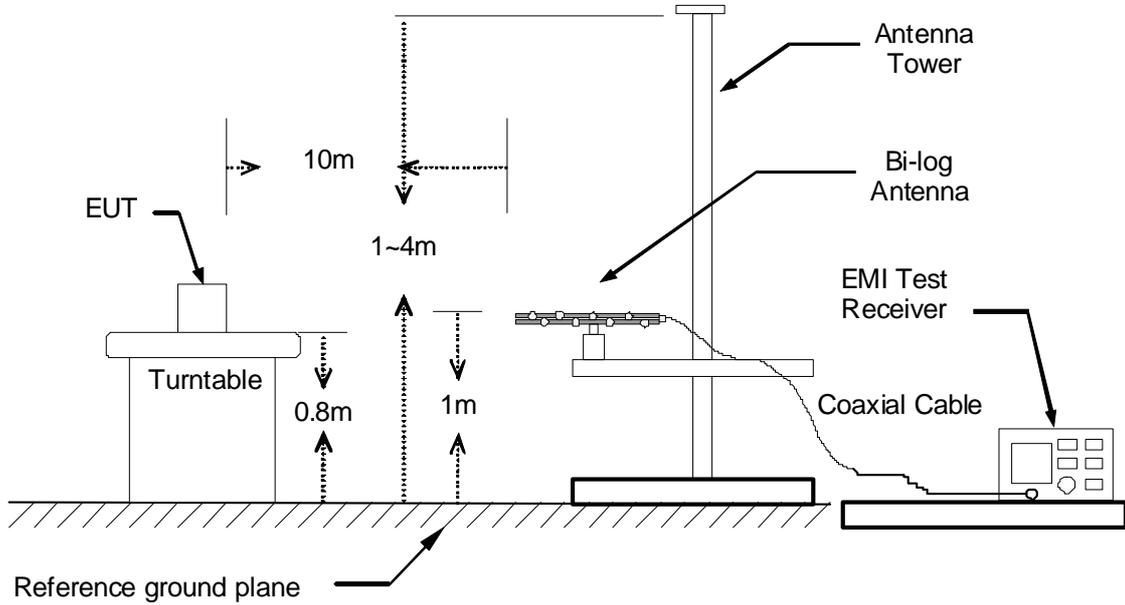
Name of Equipment	Manufacture	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY43360132	06/19/2012
EMI Receiver	ROHDE & SCHWARZ	ESCS 30	826547/004	10/27/2012
Broadband Hybrid Bi-Log Antenna	Sunol Sciences	JB1	A100209-4	10/05/2012
Double-Ridged Waveguide Horn	ETS-LINDGREN	3117	00078733	12/06/2012
Pre-Amplifier	Agilent	8447D	2944A10052	07/19/2012
Pre-Amplifier	Agilent	8449B	3008A01916	09/18/2012
Notch Filters Band Reject	Micro-Tronics	BRM05702-01	026	N.C.R

*Remark: 1. Each piece of equipment is scheduled for calibration once a year.  
2. N.C.R = No Calibration Request.*

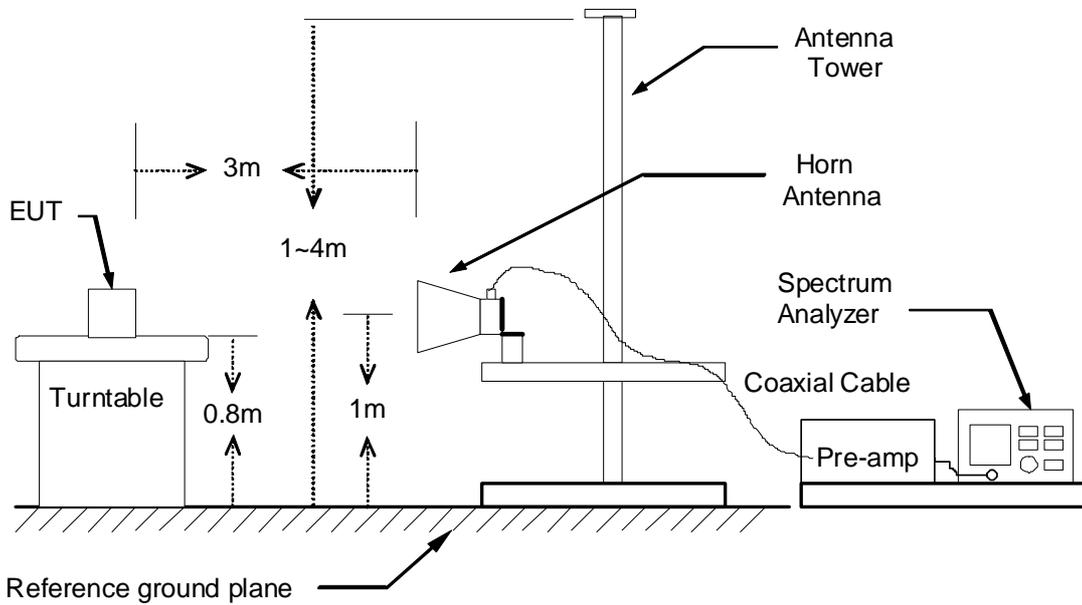


**TEST SETUP**

The diagram below shows the test setup that is utilized to make the measurements for emission from below 1GHz.



The diagram below shows the test setup that is utilized to make the measurements for emission above 1GHz.





## **TEST PROCEDURE**

The basic test procedure was in accordance with ANSI C63.4:2003.

The devices under test were placed on a rotatable table top 0.8 meter above ground. The table was rotated 360 degrees to determine the position of the highest radiation. EUT is set 3 or 10m meters from the interference receiving antenna which is mounted on the top of a variable height mast. The antenna height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.

Note :

1. The bandwidth setting on the E.M.I. meter (EMI TEST RECEIVER) is 120 KHz. The levels are Quasi-Peak value readings. The frequency spectrum from 30MHz to 1000MHz was investigated.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection and frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.



**TEST RESULTS**

**Below 1 GHz**

<b>Product Name</b>	IP Cam	<b>Test By</b>	Tom Deng
<b>Test Model</b>	B7210	<b>Test Date</b>	2011/12/27
<b>Test Mode</b>	Normal Operating / Power Adapter	<b>Temp. &amp; Humidity</b>	17°C, 65%

<b>OATS3 at 10Meter / Horizontal</b>									
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Limits (dBµV/m)	Emission Level (dBµV/m)	Margin Limit (dB)	Azimuth (°)	Height (cm)	Remark
125.11	11.82	2.08	2.95	40.00	16.85	-23.15	130	400	QP
160.03	9.94	2.50	5.12	40.00	17.56	-22.44	146	150	QP
250.65	12.77	3.45	1.41	47.00	17.63	-29.37	139	150	QP
335.48	14.09	4.11	6.14	47.00	24.34	-22.66	290	250	QP
398.26	15.64	4.68	11.78	47.00	32.10	-14.90	223	200	QP
975.36	21.41	9.20	1.32	47.00	31.93	-15.07	84	200	QP

<b>OATS3 at 10Meter / Vertical</b>									
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Limits (dBµV/m)	Emission Level (dBµV/m)	Margin Limit (dB)	Azimuth (°)	Height (cm)	Remark
32.81	15.85	0.96	10.16	40.00	26.97	-13.03	30	100	QP
125.11	11.82	2.08	8.90	40.00	22.80	-17.20	360	100	QP
160.03	9.94	2.50	12.59	40.00	25.03	-14.97	188	100	QP
398.26	15.64	4.68	12.43	47.00	32.75	-14.25	107	100	QP
875.56	20.19	8.60	2.25	47.00	31.04	-15.96	34	200	QP
975.36	21.41	9.20	1.71	47.00	32.32	-14.68	67	150	QP

**Remark:**

1. Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit.
2. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
3. Emission Level (dBµV/m) = Antenna Factor (dB/m) + Cable Loss (dB) + Meter Reading (dBµV)
4. Margin (dB) = Emission Level (dBµV/m) - Quasi-peak limit (dBµV/m)



<b>Product Name</b>	IP Cam	<b>Test By</b>	Tom Deng
<b>Test Model</b>	B7210	<b>Test Date</b>	2011/12/27
<b>Test Mode</b>	Normal Operating / PoE Mode	<b>Temp. &amp; Humidity</b>	17°C, 65%

<b>OATS3 at 10Meter / Horizontal</b>									
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Limits (dBμV/m)	Emission Level (dBμV/m)	Margin Limit (dB)	Azimuth (°)	Height (cm)	Remark
75.31	6.93	1.51	7.40	40.00	15.83	-24.17	130	300	QP
125.11	11.82	2.08	8.56	40.00	22.46	-17.54	146	100	QP
151.49	10.69	2.41	15.38	40.00	28.49	-11.51	139	150	QP
398.26	15.64	4.68	19.56	47.00	39.88	-7.12	290	200	QP
485.30	17.28	5.48	2.21	47.00	24.97	-22.03	223	100	QP
534.03	18.24	5.94	1.18	47.00	25.36	-21.64	84	200	QP
<b>OATS3 at 10Meter / Vertical</b>									
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Limits (dBμV/m)	Emission Level (dBμV/m)	Margin Limit (dB)	Azimuth (°)	Height (cm)	Remark
39.25	14.48	1.09	13.68	40.00	29.24	-10.76	236	100	QP
75.19	6.92	1.50	26.85	40.00	35.27	-4.73	160	100	QP
125.11	11.82	2.08	18.70	40.00	32.60	-7.40	32	100	QP
150.81	10.75	2.41	20.63	40.00	33.79	-6.21	68	100	QP
398.26	15.64	4.68	18.44	47.00	38.76	-8.24	65	150	QP
521.28	17.96	5.81	3.38	47.00	27.15	-19.85	73	150	QP

**Remark:**

1. Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit.
2. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
3. Emission Level (dBμV/m) = Antenna Factor (dB/m) + Cable Loss (dB) + Meter Reading (dBμV)
4. Margin (dB) = Emission Level (dBμV/m) - Quasi-peak limit (dBμV/m)



Above 1 GHz

<b>Product Name</b>	IP Cam	<b>Test By</b>	Tom Deng
<b>Test Model</b>	B7210	<b>Test Date</b>	2011/12/26
<b>Test Mode</b>	Normal Operating / Power Adapter	<b>Temp. &amp; Humidity</b>	17°C, 61%

966 Chamber_B at 3Meter / Horizontal											
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Azimuth (°)	Height (cm)	Remark
1070.00	49.45	---	-3.65	45.79	---	80.00	60.00	-14.21	139.80	100.00	Peak
1175.00	48.20	---	-3.32	44.89	---	80.00	60.00	-15.11	25.00	100.00	Peak
1600.00	45.09	---	-1.37	43.72	---	80.00	60.00	-16.28	11.20	200.00	Peak
2645.00	43.27	---	4.31	47.58	---	80.00	60.00	-12.42	342.00	200.00	Peak
4205.00	40.94	---	7.69	48.63	---	80.00	60.00	-11.37	153.60	200.00	Peak
4835.00	40.95	---	9.51	50.46	---	80.00	60.00	-9.54	342.00	100.00	Peak

966 Chamber_B at 3Meter / Vertical											
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Azimuth (°)	Height (cm)	Remark
1050.00	49.88	---	-3.72	46.16	---	80.00	60.00	-13.84	222.40	100.00	Peak
1175.00	48.07	---	-3.32	44.75	---	80.00	60.00	-15.25	206.30	100.00	Peak
1600.00	45.01	---	-1.37	43.64	---	80.00	60.00	-16.36	315.90	100.00	Peak
2760.00	42.78	---	4.67	47.45	---	80.00	60.00	-12.55	263.80	200.00	Peak
3075.00	42.65	---	5.49	48.14	---	80.00	60.00	-11.86	206.10	200.00	Peak
5855.00	39.30	---	11.50	50.80	---	80.00	60.00	-9.20	263.10	100.00	Peak

**Remark:**

1. Average test would be performed if the peak result were greater than the average limit.
2. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
4. Result = Reading + Correction Factor  
Margin = Result - Limit  
Remark Peak = Result(PK) - Limit(AV)  
Remark AVG = Result(AV) - Limit(AV)



<b>Product Name</b>	IP Cam	<b>Test By</b>	Tom Deng
<b>Test Model</b>	B7210	<b>Test Date</b>	2011/12/26
<b>Test Mode</b>	Normal Operating / PoE Mode	<b>Temp. &amp; Humidity</b>	17°C, 61%

<b>966 Chamber_B at 3Meter / Horizontal</b>											
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Azimuth (°)	Height (cm)	Remark
1060.00	49.30	---	-3.69	45.61	---	80.00	60.00	-14.39	146.60	200.00	Peak
1175.00	46.56	---	-3.32	43.24	---	80.00	60.00	-16.76	263.80	100.00	Peak
1875.00	44.32	---	1.10	45.41	---	80.00	60.00	-14.59	351.30	100.00	Peak
2240.00	43.62	---	3.01	46.63	---	80.00	60.00	-13.37	91.60	100.00	Peak
2970.00	42.47	---	5.32	47.79	---	80.00	60.00	-12.21	54.80	200.00	Peak
4130.00	41.54	---	7.44	48.98	---	80.00	60.00	-11.02	224.90	100.00	Peak
5960.00	40.41	---	11.73	52.14	---	80.00	60.00	-7.86	31.80	200.00	Peak

<b>966 Chamber_B at 3Meter / Vertical</b>											
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Azimuth (°)	Height (cm)	Remark
1060.00	52.18	---	-3.69	48.49	---	80.00	60.00	-11.51	149.10	200.00	Peak
1175.00	46.93	---	-3.32	43.61	---	80.00	60.00	-16.39	128.40	100.00	Peak
1600.00	45.82	---	-1.37	44.45	---	80.00	60.00	-15.55	18.20	100.00	Peak
2145.00	43.51	---	2.70	46.21	---	80.00	60.00	-13.79	247.70	200.00	Peak
3130.00	42.60	---	5.55	48.16	---	80.00	60.00	-11.84	1.30	200.00	Peak
5550.00	40.30	---	10.86	51.15	---	80.00	60.00	-8.85	229.40	100.00	Peak

**Remark:**

1. Average test would be performed if the peak result were greater than the average limit.
2. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
4. Result = Reading + Correction Factor  
 Margin = Result - Limit  
 Remark Peak = Result(PK) - Limit(AV)  
 Remark AVG = Result(AV) - Limit(AV)



## 7.2 CONDUCTED EMISSION

### LIMITS

Frequency Range (MHz)	Voltage Limits (dB $\mu$ V)			
	Class A		Class B	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.50	79	66	66 - 56*	56 - 46*
0.50 - 5.00	73	60	56	46
5.00 - 30.0	73	60	60	50

**Remark:** (1) The limit decreases linearly with logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

(2) The lower limit shall apply at the transition frequency.

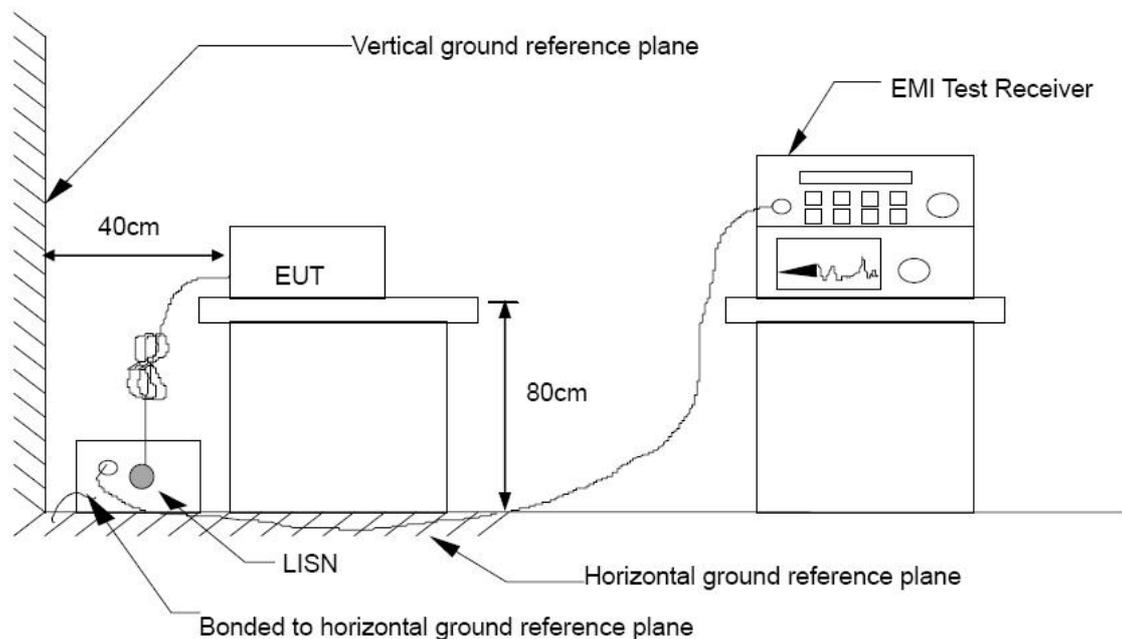
(3) \* Decreasing linearly with the logarithm of the frequency.

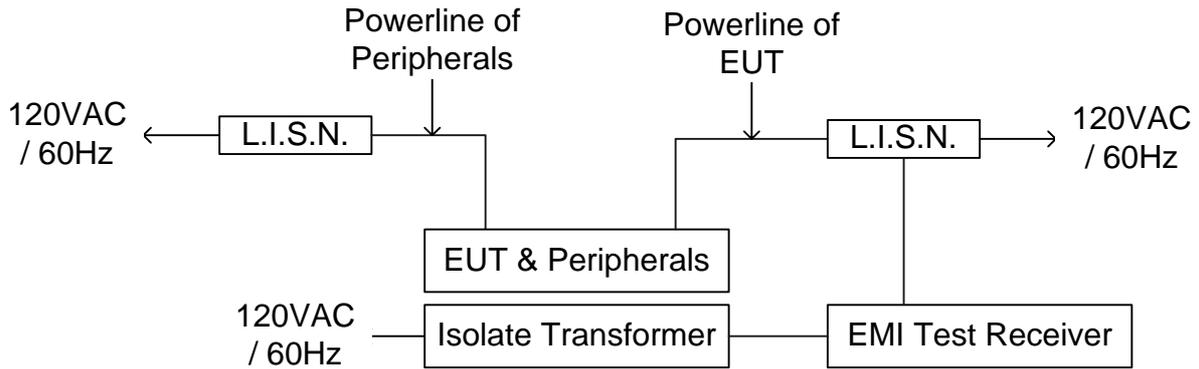
### TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
L.I.S.N	SCHWARZBECK	NSLK 8127	8127-465	08/09/2012
L.I.S.N	SCHWARZBECK	NSLK 8127	8127-473	03/14/2012
EMI Receiver	ROHDE & SCHWARZ	ESCS 30	835418/008	10/20/2012
Pulse Limiter	ROHDE & SCHWARZ	ESH3-Z2	100117	09/14/2012

**Remark:** Each piece of equipment is scheduled for calibration once a year.

### TEST SETUP





### **TEST PROCEDURE**

The basic test procedure was in accordance with ANSI C63.4:2003.

The test procedure is performed in a 4m x 3m x 2.4m (LxWxH) shielded room.

The EUT along with its peripherals were placed on a 1.0m (W) x 1.5m (L) and 0.8m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane.

The EUT was connected to power mains through a line impedance stabilization network (LISN) which provides 50 ohm coupling impedance for measuring instrument and the chassis ground was bounded to the horizontal ground plane of shielded room. All peripherals were connected to the second LISN and the chassis ground also bounded to the horizontal ground plane of shielded room.

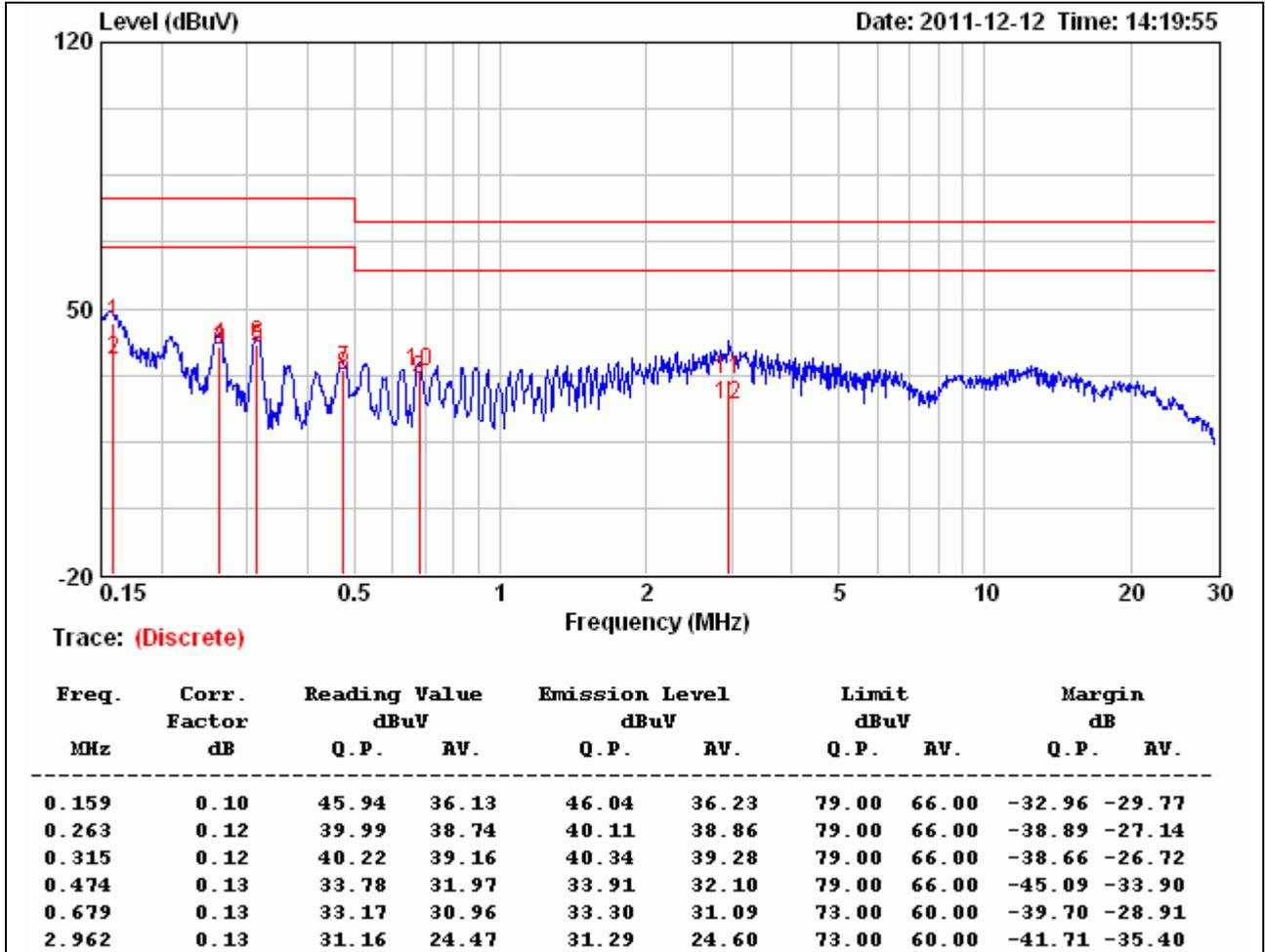
The EUT was located so that the distance between the boundary of the EUT and the closest surface of the LISN is 0.8 m. Where a mains flexible cord was provided by the manufacturer shall be 1 m long, or if in excess of 1 m, the excess cable was folded back and forth as far as possible so as to form a bundle not exceeding 0.4 m in length.



**TEST RESULTS**

<b>Product Name</b>	IP Cam	<b>Test By</b>	Tom Deng
<b>Test Model</b>	B7210	<b>Test Date</b>	2011/12/12
<b>Test Mode</b>	Normal Operating / Power Adapter	<b>Temp. &amp; Humidity</b>	24°C, 65%

LINE



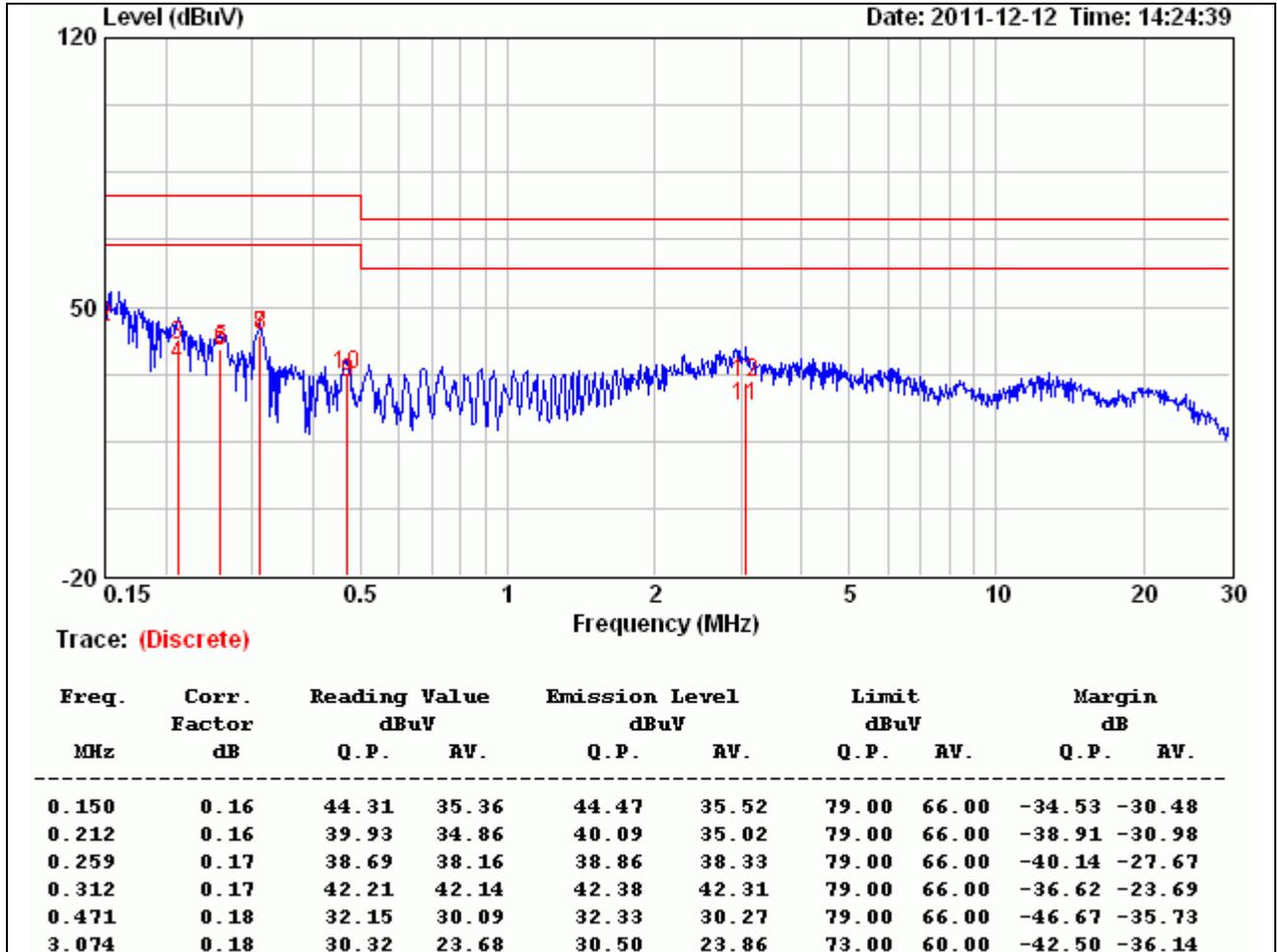
**Remark:**

1. Correction Factor = Insertion loss + Cable loss
2. Emission level = Reading Value + Correction factor
3. Margin value = Emission level – Limit value



<b>Product Name</b>	IP Cam	<b>Test By</b>	Tom Deng
<b>Test Model</b>	B7210	<b>Test Date</b>	2011/12/12
<b>Test Mode</b>	Normal Operating / Power Adapter	<b>Temp. &amp; Humidity</b>	24°C, 65%

NEUTRAL



**Remark:**

1. Correction Factor = Insertion loss + Cable loss
2. Emission level = Reading Value + Correction factor
3. Margin value = Emission level – Limit value

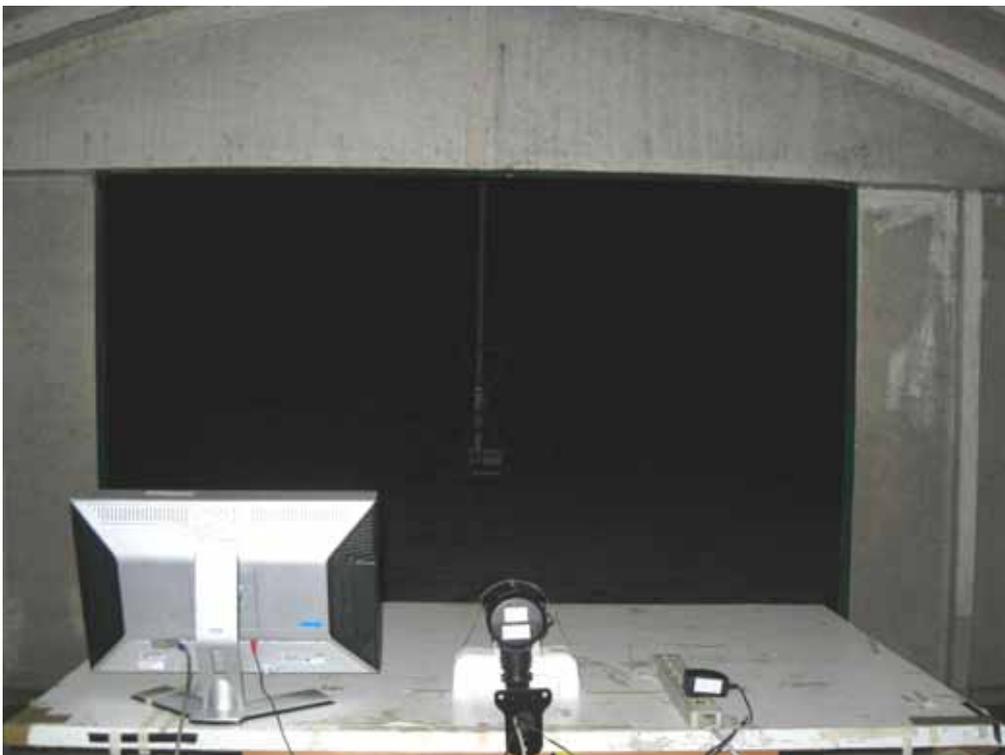


## APPENDIX SETUP PHOTOS

### RADIATED EMISSION SETUP

Below 1 GHz

Power Adapter





PoE Mode





Above 1 GHz

Power Adapter





PoE Mode





**CONDUCTED EMISSION SETUP**

