134, Wu Kung Road,
WuKu Industrial. Zone,
Taipei County, Taiwan 248
Tel: +886-2-2299-3279
Fax: +886-2-2298-2698

No: EM/2009/C0041C

VERIFICATION OF COMPLIANCE

Product Name	:	Network Camera
Brand Name	:	VIVOTEK
Model No.	:	IP8161
Added Model(s)	:	N/A
Applicant	:	VIVOTEK INC.
Address of Applicant	:	6F, No.192, Lien-Cheng Rd., Chung-Ho City,Taipei County, Taiwan, R.O.C.
Manufacturer	:	VIVOTEK INC.
Address of Manufacturer	:	5F, No.168, Lien-Cheng Rd., Chung-Ho City,Taipei County, Taiwan, R.O.C.
Based on SGS EMC Test Report Number(s)	:	EM/2009/C0041
Date of Issue	:	Jan. 06, 2010
Applicable Standards	:	EN55022 : 2006+A1:2007 Class B, EN61000-3-2 : 2006, EN61000-3-3 : 2008, EN55024 : 1998+A1:2001+A2:2003, IEC61000-4-2 : 1995+A1:1998+A2:2000, IEC61000-4-3 : 2006+A1:2007, IEC61000-4-4 : 2004, IEC61000-4-5 : 2005, IEC61000-4-6 : 2008, IEC61000-4-8 : 2009, IEC61000-4-11 : 2004

Conclusion

Based upon a review of the Technical Construction File, the apparatus is in compliance with below requirements of:

EMC Directive 2004/108/EC

Authorized Signatory:

CE

SGS TAIWAN LTD.
Ion Lin

TEST REPORT

Test Report No. : EM/2009/C0041

Applicant : VIVOTEK INC.

Address : 6F, No.192, Lien-Cheng Rd., Chung-Ho City,Taipei County, Taiwan, R.O.C.

Manufacturer : VIVOTEK INC.

Address : 5F, No.168, Lien-Cheng Rd., Chung-Ho City,Taipei County, Taiwan, R.O.C.

Equipment Under Test (EUT) :

Name : Network Camera

Brand Name : VIVOTEK

Model No. : IP8161

Added Model(s) : N/A

Standards:

EN55022 : 2006+A1:2007 Class B	EN61000-3-2 : 2006
EN61000-3-3 : 2008	
EN55024 : 1998+A1:2001+A2:2003	IEC61000-4-2 : 1995+A1:1998+A2:2000
IEC61000-4-3 : 2006+A1:2007	IEC61000-4-4 : 2004
IEC61000-4-5 : 2005	IEC61000-4-6 : 2008
IEC61000-4-8 : 2009	IEC61000-4-11 : 2004

In the configuration tested, the EUT complied with the standards specified above.

Date of Receipt : Dec. 10, 2009
Date of Test : Dec. 10 ~ 25, 2009
Date of Issue : Jan. 06, 2010

Remarks:

This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS Taiwan Electronics & Communication Laboratory or testing done by SGS Taiwan Electronics & Communication Laboratory in connection with distribution or use of the product described in this report must be approved by SGS Taiwan Electronics & Communication Laboratory in writing.

Test By:	Wisely Huang *Wisely Huang(Engineer)*	*Date*	Jan. 06, 2010
Prepared By:	Kay Ke *Kay Ke(Clerk)*	*Date*	Jan. 06, 2010
Approved By	 *Ion Lin(Assistant Manager)*	*Date*	Jan. 06, 2010

Contents

Contents

Contents

1.General Description

1.1 General Description of EUT

Name of EUT	:	Network Camera
Brand Name	:	VIVOTEK
Model No.(s)	:	IP8161
Added Model(s)	:	N/A
Variant Description:		N/A

1.2 Details of EUT

Power Supply	:	Input : AC 100-240V/50-60Hz; Output :DC 12V/1.5A Adapter of Model : (1) 3A-183WP12; (2) 3A-181WP12
Power Cord	:	Unshielded
Modes/Function	:	1. Operation Mode: Full cable; Adapter model : 3A-183WP-12 2. Operation Mode: Full cable; Adapter model : 3A-181WP-12 3. Operation Mode: Full cable; POE mode 4. Operation Mode: Full cable; ISN mode 100M Adapter model : 3A-183WP-12 5. Operation Mode: Full cable; ISN mode 100M Adapter model : 3A-181WP-12

1.3 Description of Support Units

PRODUCT	MANUFACTURER	MODEL NO.	SERIAL NO.
NOTEBOOK	IBM	R400	R8-AZLWT
NOTEBOOK	IBM	R61	L3A9050
Earphone	Logitech	ClearChat Style	981-000026
SD Card	Canon	MMC-16M	N/A
Monitor	TVS	CM-14VN	KE115120
POE	D-LINK	DES-1228P	00195B0FA2C0
POE	I.T.E	PW130RA4800N02	N/A

1.4 Operation Procedure

1. Set down EUT with support units and turn on the power of all equipment.
2. Pre-test the EUT in all modes by each model, then figure the worst case out.
3. Tests under the normal operation pattern.

1.5 The worst case of the EUT

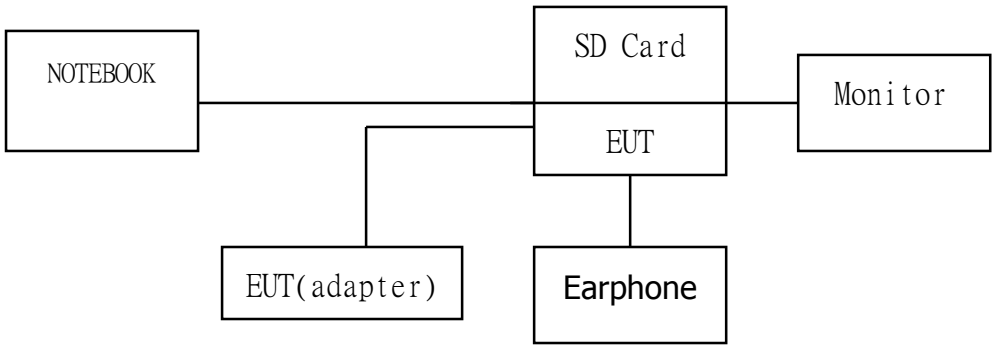
EUT will be carried out in the worst case as followings:
Model No.: IP8161
Mode : 1. Operation Mode: Full cable; Adapter model : 3A-183WP-12
2. Operation Mode: Full cable; Adapter model : 3A-181WP-12

1.6 Modification List

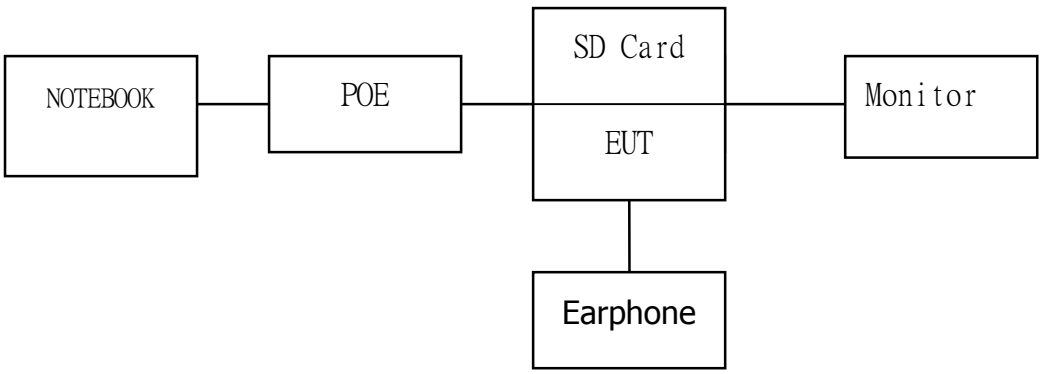
No modification by SGS Taiwan Electronics & Communication Laboratory.

1.7 Configuration of Tested System

Full System Operation mode (For AC Adaptor)



Full System Operation mode (For POE)



1.8 Cable List

Cable Type	Length	Shield
Earphone (SGS provide)	2.6m	Non-shielding
Output power cable	1.7m	Non-shielding

1.9 Summary of Results

Hightest Emission					
Standard	**Test Type**	**Result**	**Phase/Polar.**	**Frequency(MHz)**	**Margin(dB)**
EN55022 : 2006+A1:2007 Class B	Conducted Emission	Pass	Line	0.4635	-8.76(QP)
			Neutral	0.4150	-11.24(QP)
	Radiated Emission	Pass	Hor.	770.1420	-2.31 (QP)
EN 61000-3-2: 2006	Harmonic current emissions	Pass	Meet the requirements		
EN 61000-3-3: 2008	Voltage changes, voltage fluctuations & flicker	Pass	Meet the requirements		

Immunity (EN 55024:1998+A1:2001+A2:2003)				
Standard	**Test Type**	**Result**	**Performance Criteria**	**Test Judgment**
IEC61000-4-2:1995 +A1:1998 +A2:2000	ESD test	PASS	Criterion B	Meets the requirements of Performance Criterion B
IEC 61000-4-3:2006 +A1:2007	RS test	PASS	Criterion A	Meets the requirements of Performance Criterion A
IEC61000-4-4:2004	EFT Test	PASS	Criterion B	Meets the requirements of Performance Criterion A
IEC61000-4-5:2005	Surge Test	PASS	Criterion B	Meets the requirements of Performance Criterion B
IEC61000-4-6:2008	CS Test	PASS	Criterion A	Meets the requirements of Performance Criterion A
IEC61000-4-8:2009	PMF test	PASS	Criterion A	Meets the requirements of Performance Criterion A
IEC61000-4-11:2004	DIP Test	PASS	Criterion C/C/B	Meets the requirements of Performance Criterion B/A/A

2.Radio Disturbance

EN55022 : 2006+A1:2007 Class B

2.1 Test Results

EN55022 Class B	Result
Conducted Emission	**PASS**
Radiated Emission	**PASS**

2.2 Limit

Maximum permissible level of Line Conducted Emission

FREQUENCY (MHz)	Class A(dBuV)		Class B(dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

Note : The lower limit shall apply at the transition frequency.

Maximum permissible level of Common Mode Conducted Emission (Telecommunication Ports)

CLASS A

FREQUENCY (MHz)	Voltage Limit(dBuV)		Current Limit(dBuA)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	97 - 87	84 – 74	53 – 43	40 – 30
0.5 - 30.0	87	74	43	30

CLASS B

FREQUENCY (MHz)	Voltage Limit(dBuV)		Current Limit(dBuA)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	84 - 74	74 – 64	40 – 30	30 – 20
0.5 - 30.0	74	64	30	20

Note : The lower limit shall apply at the transition frequency.

Maximum permissible level of Radiated Emission measured at 10 meter

FREQUENCY (MHz)	Class A(dBuV/m)	Class B(dBuV/m)
	Quasi - peak	Quasi - peak
30 - 230	40	30
230 - 1000	47	37

Note : The lower limit shall apply at the transition frequency.

Limits above 1 GHz
Limits for radiated disturbance of Class A ITE at a measurement distance of 3m

Frequency range GHz	Average Limit dB(μV/m)	Peak Limit dB(μV/m)
1 to 3	56	76
3 to 6	60	80

Note : The lower limit applies at the transition frequency.

Limits for radiated disturbance of Class B ITE at a measurement distance of 3m

Frequency range GHz	Average Limit dB(μV/m)	Peak Limit dB(μV/m)
1 to 3	50	70
3 to 6	54	74

Note : The lower limit applies at the transition frequency.

2.3 Methods and Procedures

Standard	Date	Description
EN55022	2006+A1:2007 Class B	Limits and methods of measurement of radio interference characteristics of information technology equipment.

2.4. Test of Conducted Emission & ISN

2.4.1 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Last Calibration Date	Next Calibration Date
EMI Test Receiver	ESCS 30	828985/004	Sep. 15, 2009	Sep. 14, 2010
Coaxial Cables	WK CE Cable	N/A	Nov. 28, 2009	Nov. 27, 2010
L.I.S.N	NNB-2/16Z	99012	Feb. 02, 2009	Feb. 01, 2010
L.I.S.N	FCC-LISN-50/250-25-2-01	04034	Feb. 02, 2009	Feb. 01, 2010
ISN	FCC-TLISN-T4	20228	Feb. 03, 2009	Feb. 02, 2010

2.4.2 Test Site

SGS Taiwan LTD. Electronics & Communication Laboratory
No.134, Wu Kung Road. Wuku Industrial Zone, Taipei County 248, Taiwan (R.O.C.)

2.4.3 EUT Operating Condition

Environment :

Temperature	Humidity
23 °C	60 %RH

Test setup : Please refer to photo of CE,ISN testing set-up

2.4.4 Uncertainty of Conducted Emission

Expanded uncertainty (k=2) of Conducted Emission measurement is 2.28dB.

2.4.5 Measurement Data(CE)

Operation Mode: Full cable; Adapter model : 3A-183WP-12

L:

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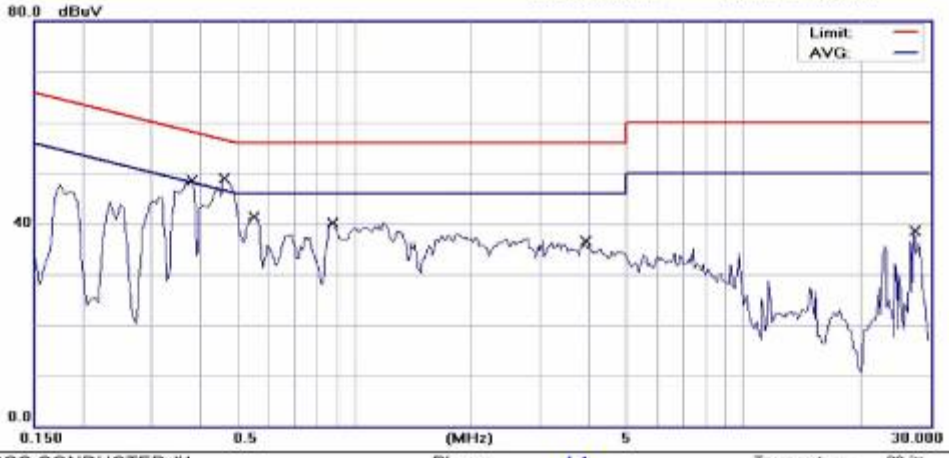
台北縣五股工業區五工路134號
電話：（02）22993279 傳真：（02）22982698

Conducted Emission Measurement

Date: 2009/12/14 Time: 上午 10:58:20



Site SGS CONDUCTED #1 Phase: *L1* Temperature: 23 ℃
Limit: CISPR22/11 Class B Conduction(QP) Power: AC 230V/50Hz Humidity: 60 %
EUT: Network Camera
M/N: IP8161
Note: Operation mode : Full cable ; Adapter model :3A-183WP-12

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.3780	46.90	0.08	46.98	58.32	-11.34	QP	
2		0.3780	34.80	0.08	34.88	48.32	-13.44	AVG	
3	*	0.4635	47.80	0.07	47.87	56.63	-8.76	QP	
4		0.4635	34.30	0.07	34.37	46.63	-12.26	AVG	
5		0.5500	41.28	0.07	41.35	56.00	-14.65	QP	
6		0.8800	40.07	0.09	40.16	56.00	-15.84	QP	
7		3.9200	36.44	0.15	36.59	56.00	-19.41	QP	
8		27.4200	38.12	0.37	38.49	60.00	-21.51	QP	

N:

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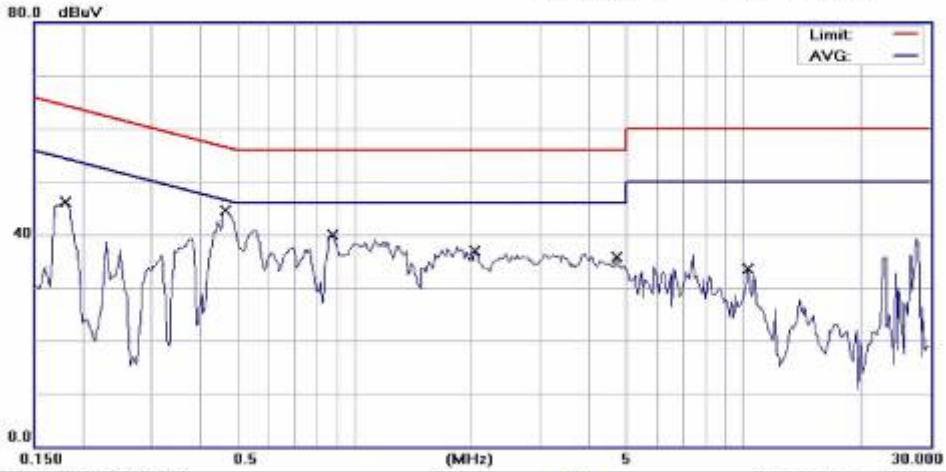
Conducted Emission Measurement

Date: 2009/12/14 Time: 上午 10:56:39



Site SGS CONDUCTED #1 Phase: N Temperature: 23 °C
Limit: CISPR22/11 Class B Conduction(QP) Power: AC 230V/50Hz Humidity: 60 %
EUT: Network Camera
M/N: IP8161
Note: Operation mode ; Full cable ; Adapter model :3A-183WP-12

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1800	45.96	0.16	46.12	64.49	-18.37	QP	
2	*	0.4650	44.46	0.10	44.56	56.60	-12.04	QP	
3		0.8800	39.80	0.12	39.92	56.00	-16.08	QP	
4		2.0400	36.78	0.15	36.93	56.00	-19.07	QP	
5		4.7200	35.45	0.18	35.63	56.00	-20.37	QP	
6		10.2800	33.02	0.45	33.47	60.00	-26.53	QP	

Operation Mode: Full cable; Adapter model : 3A-181WP-12

L :

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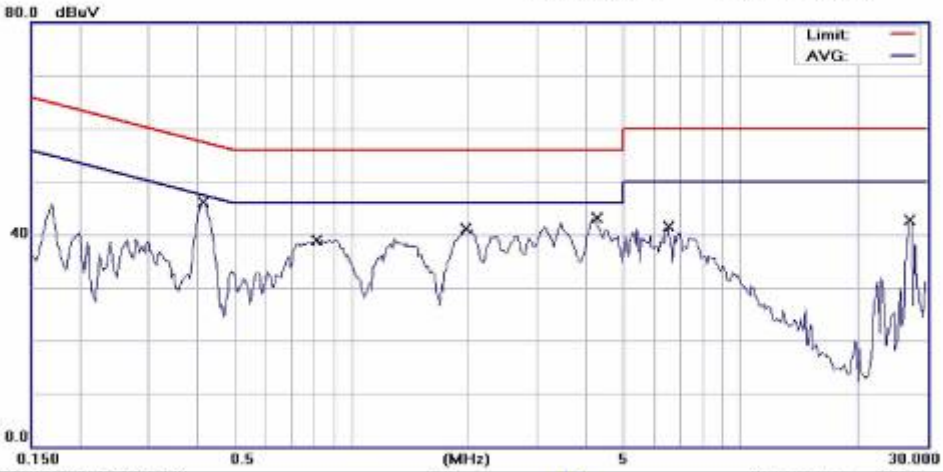
電話：（02）22993279 傳真：（02）22982698

Conducted Emission Measurement

Date: 2009/12/14 Time: 上午 11:42:52



Site SGS CONDUCTED #1 Phase: L1 Temperature: 23 °C
Limit: CISPR22/11 Class B Conduction(QP) Power: AC 230V/50Hz Humidity: 60 %
EUT: Network Camera
M/N: IP8161
Note: Operation mode : Full cable ; Adapter model :3A-181WP-12

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.4150	46.00	0.08	46.08	57.55	-11.47	QP	
2		0.8100	38.92	0.08	39.00	56.00	-17.00	QP	
3		1.9600	40.89	0.13	41.02	56.00	-14.98	QP	
4		4.2500	42.98	0.15	43.13	56.00	-12.87	QP	
5		6.5200	41.28	0.23	41.51	60.00	-18.49	QP	
6		27.2200	42.35	0.36	42.71	60.00	-17.29	QP	

N :

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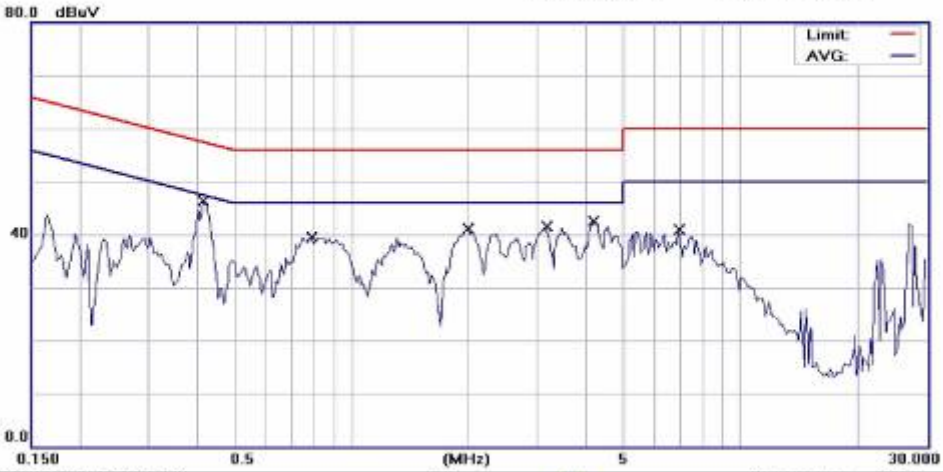
Conducted Emission Measurement

Date: 2009/12/14 Time: 上午 11:45:01



Site SGS CONDUCTED #1 Phase: N Temperature: 23 ℃
Limit: CISPR22/11 Class B Conduction(QP) Power: AC 230V/50Hz Humidity: 60 %
EUT: Network Camera
M/N: IP8161
Note: Operation mode ; Full cable ; Adapter model :3A-181WP-12

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.4150	46.20	0.11	46.31	57.55	-11.24	QP	
2		0.7900	39.31	0.11	39.42	56.00	-16.58	QP	
3		2.0000	40.96	0.15	41.11	56.00	-14.89	QP	
4		3.1700	41.28	0.16	41.44	56.00	-14.56	QP	
5		4.1800	42.30	0.17	42.47	56.00	-13.53	QP	
6		6.9200	40.56	0.27	40.83	60.00	-19.17	QP	

2.4.6 Measurement Data(ISN)

Operation Mode: Full cable; ISN mode 100M Adapter model : 3A-183WP-12

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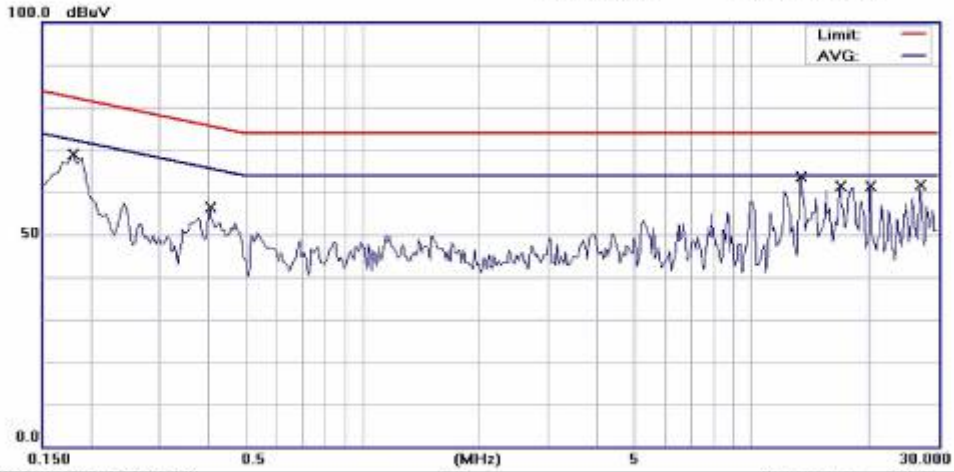
Conducted Emission Measurement

Date: 2009/12/21 Time: 下午 03:07:00



Site SGS CONDUCTED #1 Phase: Temperature: 24 ℃
Limit: EN55022 ISN Voltage - Class B (QP) Power: AC 230V/50Hz Humidity: 56 %
EUT: Network Camera
M/N: IP8161
Note: Operation : Full cable; ISN mode 100M; Adapter model :3A-183WP-12

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1800	58.89	10.05	68.94	82.49	-13.55	QP	
2		0.4050	46.37	9.96	56.33	75.75	-19.42	QP	
3	*	13.4200	53.28	10.31	63.59	74.00	-10.41	QP	
4		16.9000	51.12	10.20	61.32	74.00	-12.68	QP	
5		20.2600	51.33	10.03	61.36	74.00	-12.64	QP	
6		27.1600	51.73	10.02	61.75	74.00	-12.25	QP	

Operation Mode: Full cable; POE mode ISN

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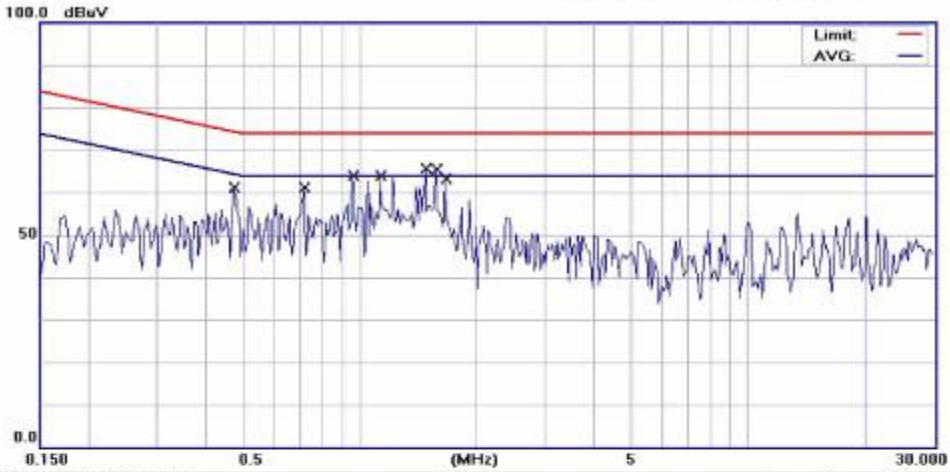
電話：（02）22993279 傳真：（02）22982698

Conducted Emission Measurement

Date: 2009/12/17 Time: 下午 03:02:39



Site SGS CONDUCTED #1 Phase: Temperature: 24 ℃
Limit: EN55022 ISN Voltage - Class B (QP) Power: From POE Adapter Humidity: 56 %
EUT: Network Camera
M/N: IP8161
Note: Operation : Full cable ; POE MODE ISN (230V/50Hz)

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.4750	51.08	9.94	61.02	74.43	-13.41	QP	
2		0.7200	51.13	9.93	61.06	74.00	-12.94	QP	
3		0.9600	53.96	9.92	63.88	74.00	-10.12	QP	
4		1.1297	52.00	9.92	61.92	74.00	-12.08	QP	
5		1.1297	49.30	9.92	59.22	64.00	-4.78	AVG	
6		1.4836	54.50	9.92	64.42	74.00	-9.58	QP	
7	*	1.4836	52.60	9.92	62.52	64.00	-1.48	AVG	
8		1.5663	50.40	9.92	60.32	74.00	-13.68	QP	
9		1.5663	48.60	9.92	58.52	64.00	-5.48	AVG	
10		1.6671	46.30	9.92	56.22	74.00	-17.78	QP	
11		1.6671	43.00	9.92	52.92	64.00	-11.08	AVG	

Operation Mode: Full cable; ISN mode 100M Adapter model : 3A-181WP-12

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台北縣五股工業區五工路134號
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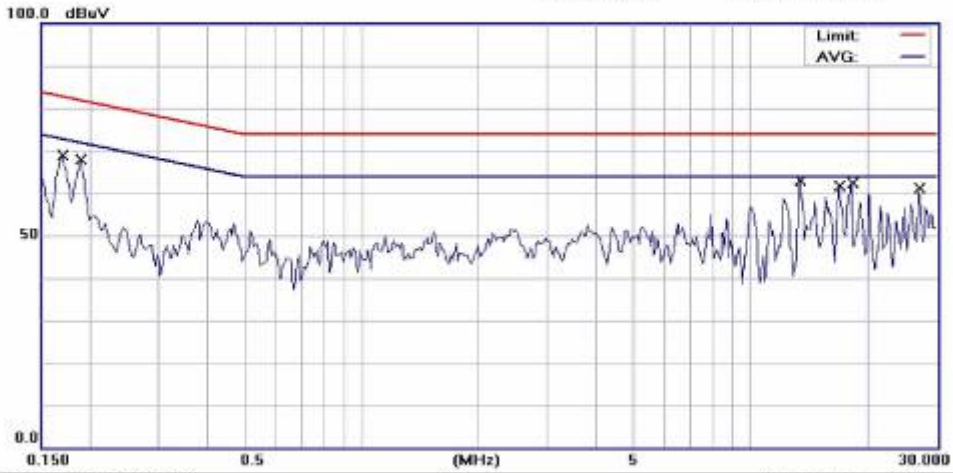
Conducted Emission Measurement

Date: 2009/12/21 Time: 下午 03:15:41



Site SGS CONDUCTED #1 Phase: Temperature: 24 ℃
Limit: EN55022 ISN Voltage - Class B (QP) Power: AC 230V/50Hz Humidity: 56 %
EUT: Network Camera
M/N: IP8161
Note: Operation : Full cable ISN mode 100M; Adapter model :3A-181WP-12

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1700	58.83	10.07	68.90	82.96	-14.06	QP	
2		0.1900	57.73	10.04	67.77	82.04	-14.27	QP	
3	*	13.4200	52.52	10.31	62.83	74.00	-11.17	QP	
4		16.9000	51.42	10.20	61.62	74.00	-12.38	QP	
5		18.2400	52.25	10.13	62.38	74.00	-11.62	QP	
6		27.1600	51.23	10.02	61.25	74.00	-12.75	QP	

2.5 Test of Radiated Emission

2.5.1 Test Instruments

Description	Manufacturer	Model No.	Serial No.	Last Calibration Date	Next Calibration Date
EMI Test Receiver	ROHDE&SCHWARZ	ESCI	100335	Feb. 05, 2009	Feb. 04, 2010
RF-Amplifier	Agilent	8447D	2944A09469	Nov. 28, 2009	Nov. 27, 2010
Broadband Antenna	SCHWAZBECK	VULB9160	9160-3224	Mar. 11, 2009	Mar. 10, 2010
Coaxial Cables	N/A	OS RE Cable	N/A	Nov. 28, 2009	Nov. 27, 2010
Antenna Master	HD GmbH	MA 240	240/515	N/A	N/A
Turn Table	HD GmbH	DT420	420/542	N/A	N/A
Controller	HD GmbH	HD 100	100/589	N/A	N/A

2.5.2 Test Site

SGS Taiwan LTD. Electronics & Communication Laboratory
No. 29, Pau-Tou-Tsuo Valley, Chia-Pau Tsuen, Linkou Hsiang, Taipei County 244, Taiwan (R.O.C.)

2.5.3 EUT Operating Condition

Environment :

Temperature	Humidity
22 °C	59 %RH

Test setup : Please refer to photo of RE testing set-up

2.5.4 Uncertainty of Radiated Emission

Expanded uncertainty (k=2) of radiated emission measurement is 3.8dB.

2.5.5 Measurement Data

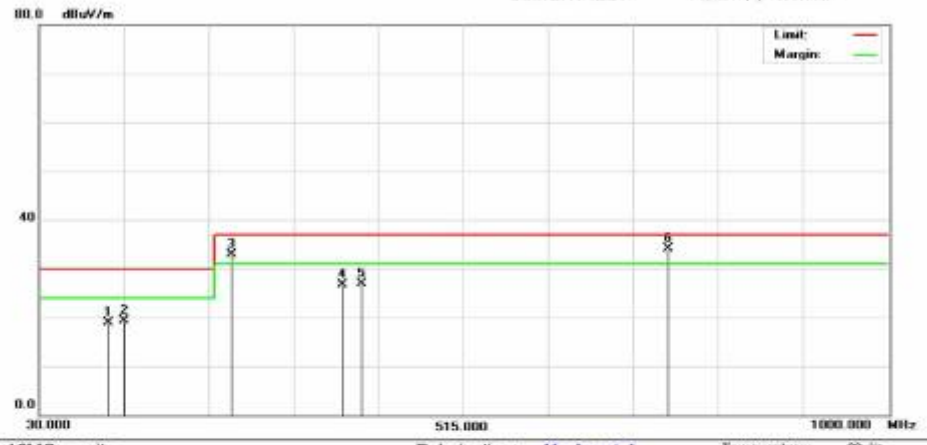
Operation Mode: Full cable; Adapter model : 3A-183WP-12

2.5.5.1 Horizontal polarization

臺灣檢驗科技股份有限公司 -電子暨通訊實驗室
Address :台北縣五股工業區五工路 134 號
Tel:02-2299-3279 Fax:02-2298-2698

Radiated Emission Measurement

Date: 2009/12/24 Time : 下午 03:30:07



Site :10MOpensite
Limit: CISPR22\CISPR11\EN55022 Class B 10M
EUT: Network Camera
M/N: IP8161
Note: Operation mode ; Full cable ; Adapter model :3A-183WP-12

Polarization: *Horizontal*
Power: AC 230V/50Hz

Temperature: 22 °C
Humidity: 59%

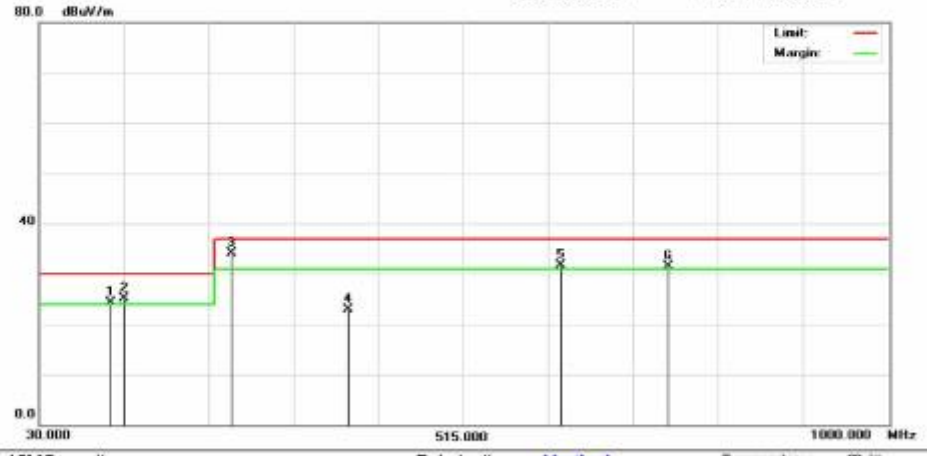
No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		108.7940	36.19	-17.28	18.91	30.00	-11.09	QP	
2		125.0020	35.31	-16.03	19.28	30.00	-10.72	QP	
3	!	250.0000	47.51	-14.62	32.89	37.00	-4.11	QP	
4		375.0000	37.55	-10.89	26.66	37.00	-10.34	QP	
5		398.5200	37.40	-10.48	26.92	37.00	-10.08	QP	
6	*	750.0420	36.10	-2.02	34.08	37.00	-2.92	QP	

2.5.5.2 Vertical polarization

SGS
臺灣檢驗科技股份有限公司 -電子暨通訊實驗室
Address :台北縣五股工業區五工路 134 號
Tel:02-2299-3279 Fax:02-2298-2698

Radiated Emission Measurement

Date: 2009/12/24 Time : 下午 03:25:19



Site :10MOpensite Polarization: *Vertical* Temperature: 22 °C
Limit: CISPR22\CISPR11\EN55022 Class B 10M Power: AC 230V/50Hz Humidity: 59%
EUT: Network Camera
M/N: IP8161
Note: Operation mode ; Full cable ; Adapter model :3A-183WP-12

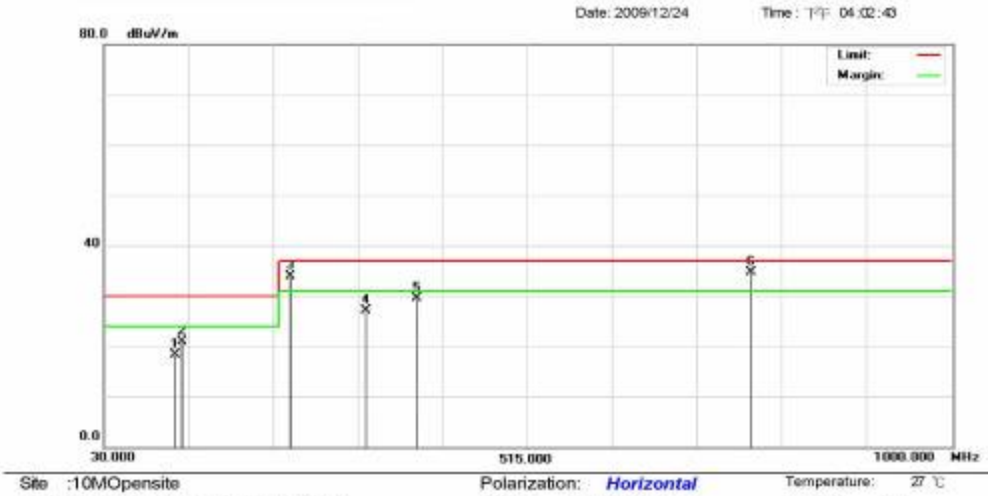
No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	!	111.6000	41.25	-16.93	24.32	30.00	-5.68	QP	
2	!	125.0000	41.22	-16.03	25.19	30.00	-4.81	QP	
3	*	250.0030	48.73	-14.62	34.11	37.00	-2.89	QP	
4		384.0020	33.66	-10.73	22.93	37.00	-14.07	QP	
5	!	625.0000	36.64	-4.91	31.73	37.00	-5.27	QP	
6	!	750.0020	33.43	-2.02	31.41	37.00	-5.59	QP	

Operation Mode: Full cable; POE mode

2.5.5.3 Horizontal polarization

臺灣檢驗科技股份有限公司 -電子暨通訊實驗室
Address :台北縣五股工業區五工路 134 號
Tel:02-2299-3279 Fax:02-2298-2698

Radiated Emission Measurement



Site :10MOpensite
Limit: CISPR22 Class B 10M Radiation
EUT: Network Camera
M/N: IP8161
Note: Operation : Full cable ; POE MODE (230V/50Hz)

Polarization: *Horizontal*
Power: From POE Adapter

Temperature: 27 °C
Humidity: 62%

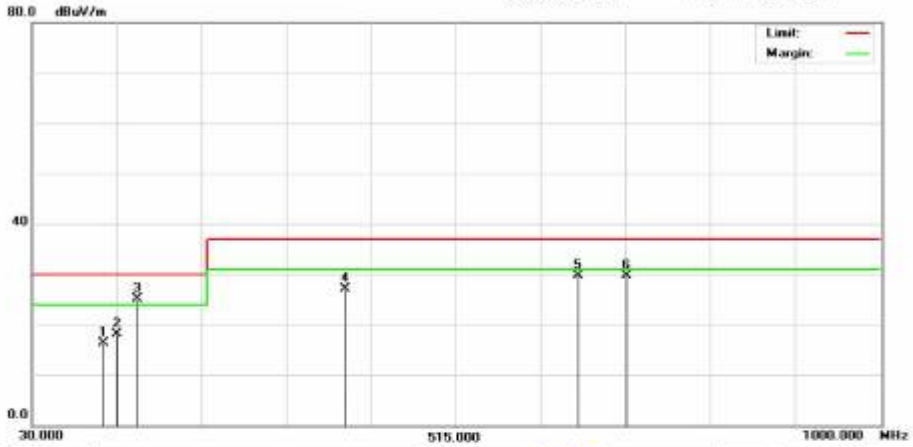
No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		111.2580	35.26	-16.94	18.32	30.00	-11.68	QP	
2		118.3620	37.53	-16.59	20.94	30.00	-9.06	QP	
3	!	243.1580	48.77	-14.85	33.92	37.00	-3.08	QP	
4		330.2650	38.79	-11.70	27.09	37.00	-9.91	QP	
5		387.3640	40.13	-10.68	29.45	37.00	-7.55	QP	
6	*	770.1420	36.45	-1.76	34.69	37.00	-2.31	QP	

2.5.5.4 Vertical polarization

SGS
臺灣檢驗科技股份有限公司 -電子暨通訊實驗室
Address :台北縣五股工業區五工路 134 號
Tel:02-2299-3279 Fax:02-2298-2698

Radiated Emission Measurement

Date: 2009/12/24 Time : 下午 04:00:16



Site :10MOpensite
Limit: CISPR22 Class B 10M Radiation
EUT: Network Camera
M/N: IP8161
Note: Operation : Full cable ; POE MODE (230V/50Hz)

Polarization: *Vertical*
Power: From POE Adapter

Temperature: 27 °C
Humidity: 62%

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		110.2470	33.28	-17.00	16.28	30.00	-13.72	QP	
2		125.3650	34.19	-16.00	18.19	30.00	-11.81	QP	
3	*	150.2540	39.88	-14.82	25.06	30.00	-4.94	QP	
4		387.5420	37.76	-10.67	27.09	37.00	-9.91	QP	
5		654.2850	34.17	-4.40	29.77	37.00	-7.23	QP	
6		710.2860	33.19	-3.40	29.79	37.00	-7.21	QP	

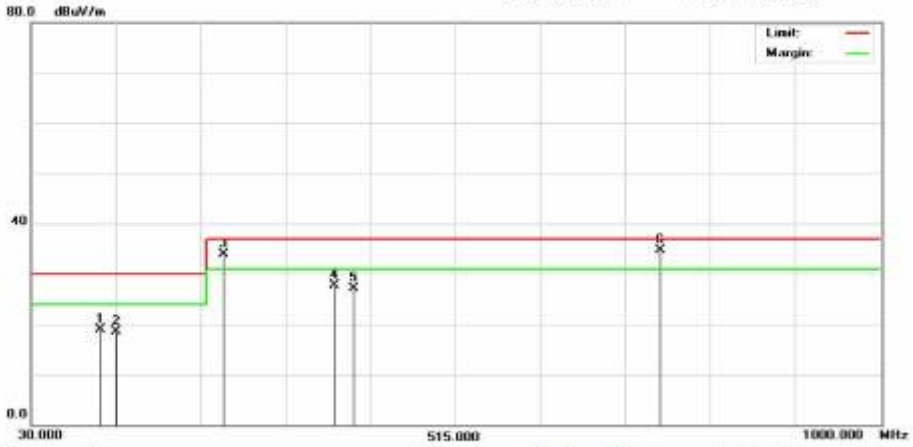
Operation Mode: Full cable; Adapter model : 3A-181WP-12

2.5.5.5 Horizontal polarization

臺灣檢驗科技股份有限公司 -電子暨通訊實驗室
Address :台北縣五股工業區五工路 134 號
Tel:02-2299-3279 Fax:02-2298-2698

Radiated Emission Measurement

Date: 2009/12/24 Time : 下午 03:30:07



Site :10MOpensite
Limit: CISPR22\CISPR11\EN55022 Class B 10M
EUT: Network Camera
M/N: IP8161
Note: Operation mode ; Full cable ; Adapter model :3A-181WP-12

Polarization: *Horizontal*
Power: AC 230V/50Hz

Temperature: 22 °C
Humidity: 59%

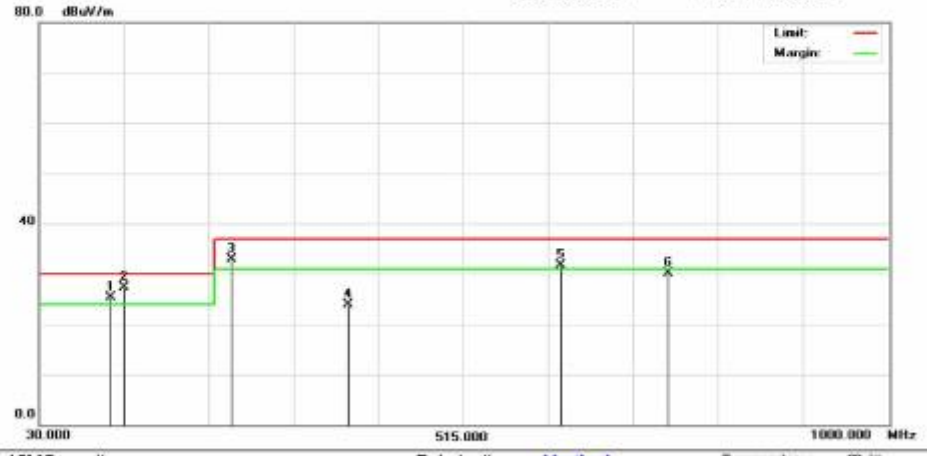
No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		108.7850	36.25	-17.29	18.96	30.00	-11.04	QP	
2		126.1550	34.53	-15.93	18.60	30.00	-11.40	QP	
3	!	250.0350	48.53	-14.62	33.91	37.00	-3.09	QP	
4		375.1550	38.63	-10.89	27.74	37.00	-9.26	QP	
5		398.5230	37.53	-10.48	27.05	37.00	-9.95	QP	
6	*	750.1530	36.70	-2.01	34.69	37.00	-2.31	QP	

2.5.5.6 Horizontal polarization

SGS
臺灣檢驗科技股份有限公司 -電子暨通訊實驗室
Address :台北縣五股工業區五工路 134 號
Tel:02-2299-3279 Fax:02-2298-2698

Radiated Emission Measurement

Date: 2009/12/24 Time : 下午 03:25:19



Site :10MOpensite
Polarization: *Vertical*
Temperature: 22 °C
Limit: CISPR22\CISPR11\EN55022 Class B 10M
Power: AC 230V/50Hz
Humidity: 59%
EUT: Network Camera
M/N: IP8161
Note: Operation mode ; Full cable ; Adapter model :3A-181WP-12

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	!	111.6500	42.25	-16.92	25.33	30.00	-4.67	QP	
2	*	125.1500	43.25	-16.02	27.23	30.00	-2.77	QP	
3	!	250.0450	47.53	-14.62	32.91	37.00	-4.09	QP	
4		384.0320	34.55	-10.73	23.82	37.00	-13.18	QP	
5	!	625.0100	36.66	-4.91	31.75	37.00	-5.25	QP	
6		750.0020	32.16	-2.02	30.14	37.00	-6.86	QP	

3.Harmonics

EN61000-3-2:2006

3.1 Test Results

EN61000-3-2:2006	**PASS**

3.2 Methods and Procedures

Standard	Date	Description
EN61000-3-2	2006	Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase)

3.3 Test Instruments

Description	Manufacturer	Model No.	Serial No.	Last Calibration Date	Next Calibration Date
Power Analyzer	EMC Partner	HAR1000-1P	151	Jun. 08, 2009	Jun. 07, 2010

3.4 Test Site

SGS Taiwan LTD. Electronics & Communication Laboratory
No.134, Wu Kung Road. Wuku Industrial Zone, Taipei County 248, Taiwan (R.O.C.)

Model of Adapter : 3A-183WP-12

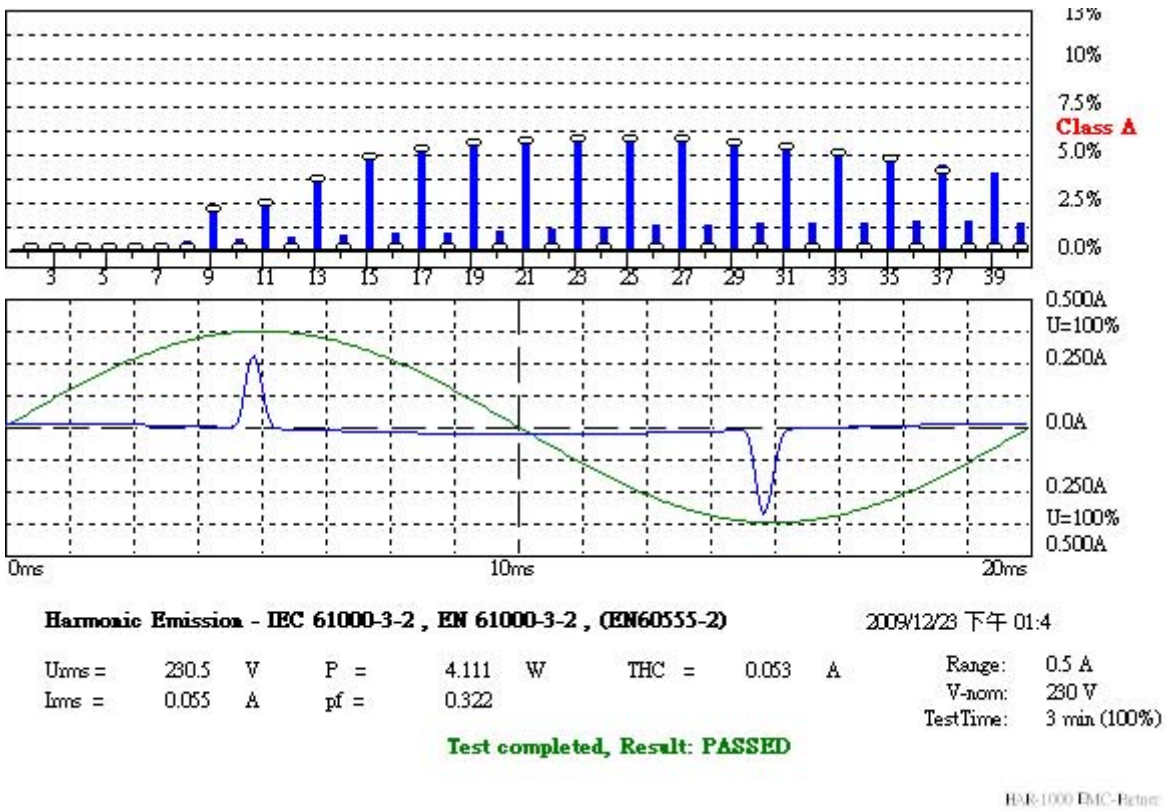
3.5 EUT Operating Condition

Environment :

Temperature	Humidity
28 °C	59 %RH

Test setup : Please refer to photo of HARMONIC testing set-up

3.6 Measurement Data (1)



Harmonic Emission - IEC 61000-3-2 , EN 61000-3-2 , (EN60555-2) 2009/12/23 下午 01:4

Urms =	230.5	V	P =	4.111	W	THC =	0.053	A	Range:	0.5 A
Irms =	0.055	A	pf =	0.322					V-nom:	230 V
									TestTime:	3 min (100%)

Test completed, Result: PASSED

HAR-1000 EMC-Partner

Measurement Data (2)

Urms =	230.5V	Freq =	50.000	Range:	0.5 A
Irms =	0.055A	Ipk =	0.347A	cf =	6.269
P =	4.111W	S =	12.77VA	pf =	0.322
THDi =	91.2 %	THDu =	0.10 %	Class A	
Test - Time : 3min (100 %)					
Test completed, Result: PASSED					

Order	Freq. [Hz]	Iavg [A]	Iavg%L [%]	Imax [A]	Imax%L [%]	Limit [A]	Status
1	50	0.0238		0.0240			
2	100	0.0000	0.0000	0.0015	0.1385	1.0800	
3	150	0.0166	0.7233	0.0167	0.7245	2.3000	
4	200	0.0000	0.0000	0.0015	0.3478	0.4300	
5	250	0.0165	1.4473	0.0165	1.4482	1.1400	
6	300	0.0000	0.0000	0.0015	0.4985	0.3000	
7	350	0.0162	2.1099	0.0163	2.1125	0.7700	
8	400	0.0000	0.0000	0.0015	0.6634	0.2300	
9	450	0.0159	3.9712	0.0159	3.9749	0.4000	
10	500	0.0000	0.0000	0.0016	0.8459	0.1840	
11	550	0.0154	4.6730	0.0154	4.6794	0.3300	
12	600	0.0000	0.0000	0.0016	1.0150	0.1533	
13	650	0.0149	7.0811	0.0149	7.1062	0.2100	
14	700	0.0000	0.0000	0.0016	1.2074	0.1314	
15	750	0.0142	9.4897	0.0143	9.5215	0.1500	
16	800	0.0000	0.0000	0.0016	1.3799	0.1150	
17	850	0.0135	10.223	0.0136	10.261	0.1324	
18	900	0.0000	0.0000	0.0016	1.5524	0.1022	
19	950	0.0128	10.781	0.0128	10.849	0.1184	
20	1000	0.0000	0.0000	0.0016	1.7581	0.0920	
21	1050	0.0120	11.158	0.0120	11.222	0.1071	
22	1100	0.0000	0.0000	0.0016	1.8974	0.0836	

23	1150	0.0111	11.358	0.0112	11.449	0.0978	
24	1200	0.0000	0.0000	0.0016	2.0699	0.0767	
25	1250	0.0102	11.375	0.0103	11.495	0.0900	
26	1300	0.0000	0.0000	0.0016	2.1993	0.0708	
27	1350	0.0094	11.231	0.0095	11.353	0.0833	
28	1400	0.0000	0.0000	0.0015	2.3220	0.0657	
29	1450	0.0085	10.906	0.0086	11.053	0.0776	
30	1500	0.0000	0.0000	0.0015	2.4381	0.0613	
31	1550	0.0076	10.457	0.0077	10.638	0.0726	
32	1600	0.0000	0.0000	0.0014	2.4945	0.0575	
33	1650	0.0067	9.8679	0.0068	10.026	0.0682	
34	1700	0.0000	0.0000	0.0014	2.5940	0.0541	
35	1750	0.0059	9.1743	0.0060	9.3519	0.0643	
36	1800	0.0000	0.0000	0.0013	2.6272	0.0511	
37	1850	0.0049	8.0052	0.0052	8.5815	0.0608	
38	1900	0.0000	0.0000	0.0013	2.6471	0.0484	
39	1950	0.0000	0.0000	0.0045	7.7759	0.0577	
40	2000	0.0000	0.0000	0.0012	2.5874	0.0460	

Added Model(s) of Adapter : 3A-181WP-12

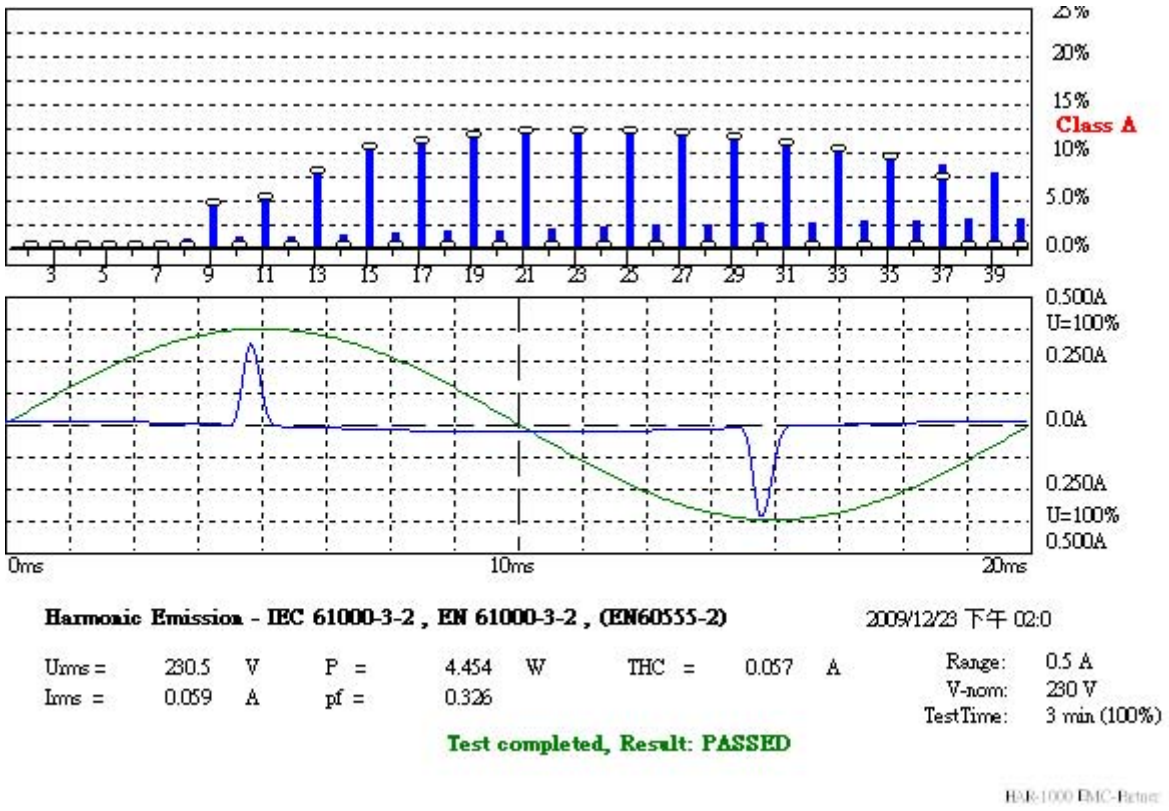
3.7 EUT Operating Condition

Environment :

Temperature	Humidity
28 °C	57 %RH

Test setup : Please refer to photo of HARMONIC testing set-up

3.8 Measurement Data (1)



Measurement Data (2)

Urms =	230.5V	Freq =	50.000	Range:	0.5 A
Irms =	0.059A	Ipk =	0.361A	cf =	6.078
P =	4.454W	S =	13.67VA	pf =	0.326
THDi =	91.3 %	THDu =	0.10 %	Class A	
Test - Time : 3min (100 %)					
Test completed, Result: PASSED					

Order	Freq. [Hz]	Iavg [A]	Iavg%L [%]	Imax [A]	Imax%L [%]	Limit [A]	Status
1	50	0.0254		0.0256			
2	100	0.0000	0.0000	0.0013	0.1215	1.0800	
3	150	0.0182	0.7919	0.0182	0.7935	2.3000	
4	200	0.0000	0.0000	0.0013	0.3052	0.4300	
5	250	0.0180	1.5825	0.0181	1.5874	1.1400	
6	300	0.0000	0.0000	0.0013	0.4476	0.3000	
7	350	0.0177	2.3036	0.0178	2.3106	0.7700	
8	400	0.0000	0.0000	0.0013	0.5838	0.2300	
9	450	0.0173	4.3272	0.0174	4.3411	0.4000	
10	500	0.0000	0.0000	0.0014	0.7464	0.1840	
11	550	0.0168	5.0789	0.0168	5.0955	0.3300	
12	600	0.0000	0.0000	0.0014	0.8956	0.1533	
13	650	0.0161	7.6708	0.0161	7.6875	0.2100	
14	700	0.0000	0.0000	0.0014	1.0681	0.1314	
15	750	0.0154	10.243	0.0154	10.274	0.1500	
16	800	0.0000	0.0000	0.0014	1.2207	0.1150	
17	850	0.0145	10.986	0.0146	11.022	0.1324	
18	900	0.0000	0.0000	0.0014	1.4031	0.1022	
19	950	0.0137	11.530	0.0137	11.571	0.1184	
20	1000	0.0000	0.0000	0.0014	1.5591	0.0920	
21	1050	0.0127	11.864	0.0128	11.934	0.1071	
22	1100	0.0000	0.0000	0.0014	1.7150	0.0836	

23	1150	0.0117	12.001	0.0118	12.073	0.0978	
24	1200	0.0000	0.0000	0.0014	1.8709	0.0767	
25	1250	0.0107	11.935	0.0108	12.004	0.0900	
26	1300	0.0000	0.0000	0.0014	2.0268	0.0708	
27	1350	0.0097	11.693	0.0098	11.792	0.0833	
28	1400	0.0000	0.0000	0.0014	2.1827	0.0657	
29	1450	0.0087	11.257	0.0088	11.367	0.0776	
30	1500	0.0000	0.0000	0.0014	2.2888	0.0613	
31	1550	0.0078	10.685	0.0078	10.806	0.0726	
32	1600	0.0000	0.0000	0.0014	2.3883	0.0575	
33	1650	0.0068	9.9759	0.0069	10.116	0.0682	
34	1700	0.0000	0.0000	0.0013	2.4812	0.0541	
35	1750	0.0059	9.1635	0.0060	9.3045	0.0643	
36	1800	0.0000	0.0000	0.0013	2.5675	0.0511	
37	1850	0.0043	7.0580	0.0051	8.4310	0.0608	
38	1900	0.0000	0.0000	0.0013	2.6471	0.0484	
39	1950	0.0000	0.0000	0.0043	7.5114	0.0577	
40	2000	0.0000	0.0000	0.0012	2.6537	0.0460	

4.Flicker

EN61000-3-3:2008

4.1 Test Results

EN61000-3-3:2008	**PASS**

4.2 Methods and Procedures

Standard	Date	Description
EN61000-3-3	2008	Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current <= 16 A per phase and not subject to conditional connection

4.3 Test Instruments

Description	Manufacturer	Model No.	Serial No.	Last Calibration Date	Next Calibration Date
Power Analyzer	EMC Partner	HAR1000-1P	151	Jun. 08, 2009	Jun. 07, 2010

4.4 Test Site

SGS Taiwan LTD. Electronics & Communication Laboratory
No.134, Wu Kung Road. Wuku Industrial Zone, Taipei County 248, Taiwan (R.O.C.)

Model of Adapter : 3A-183WP-12

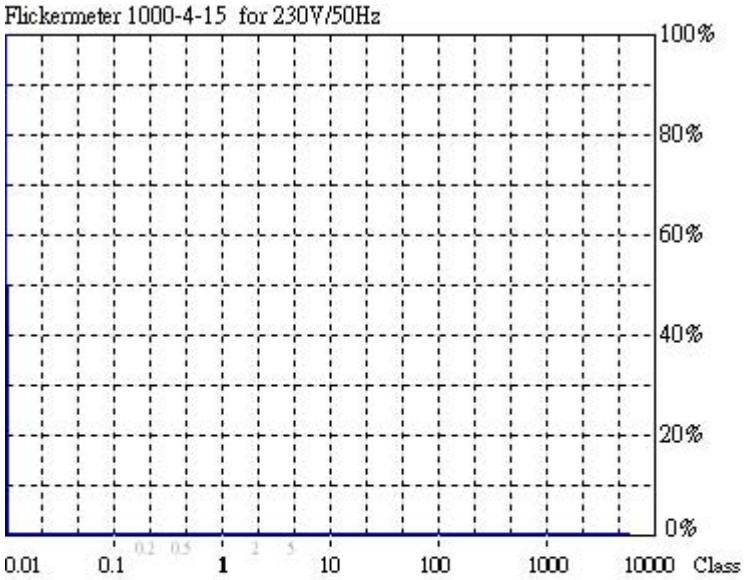
4.5 EUT Operating Condition

Environment :

Temperature	Humidity
28 °C	59 %RH

Test setup : Please refer to photo of FLICKER testing set-up

4.6 Measurement Data



Actual Flicker (Fli):	**0.00**
Short-term Flicker (Pst):	**0.07**
Limit (Pst):	1.00
Long-term Flicker (Plt):	**0.07**
Limit (Plt):	0.65
Maximum Relative Volt. Change (dmax):	**0.00%**
Limit (dmax):	4.00%
Relative Steady-state Voltage Change (dc):	**0.01%**
Limit (dc):	3.30%
Maximum Interval exceeding 3.30% (dt):	**0.00ms**
Limit (dt>Lim):	500ms

Flicker Emission - IEC 61000-3-3 , EN 61000-3-3 , (EN60555-3)

2009/12/23 下午 01:5

Urms =	230.5	V	P =	4.099	W
Irms =	0.053	A	pf =	0.337	

Range:	0.5 A
V-nom:	230 V
TestTime:	10 min (100%)

Test completed, Result: PASSED

HAR-1000 EMC-Partner

Added Model(s) of Adapter : 3A-181WP-12

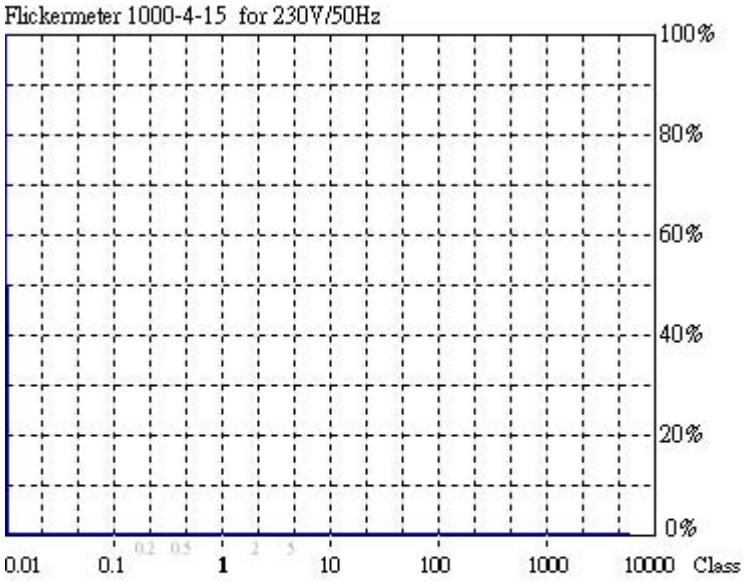
4.5 EUT Operating Condition

Environment :

Temperature	Humidity
28 °C	57 %RH

Test setup : Please refer to photo of FLICKER testing set-up

4.6 Measurement Data



Actual Flicker (Fli):	**0.00**
Short-term Flicker (Pst):	**0.07**
Limit (Pst):	1.00
Long-term Flicker (Plt):	**0.07**
Limit (Plt):	0.65
Maximum Relative Volt. Change (dmax):	**0.00%**
Limit (dmax):	4.00%
Relative Steady-state Voltage Change (dc):	**0.01%**
Limit (dc):	3.30%
Maximum Interval exceeding 3.30% (dt):	**0.00ms**
Limit (dt>Lim):	500ms

Flicker Emission - IEC 61000-3-3 , EN 61000-3-3 , (EN60555-3)

2009/12/23 下午 02:1

Urms =	230.5	V	P =	4.504	W
Irms =	0.057	A	pf =	0.341	

Range:	0.5 A
V-nom:	230 V
TestTime:	10 min (100%)

Test completed, Result: PASSED

HAR-1000 EMC-Partner

5.IMMUNITY

EN55024:1998+A1:2001+A2:2003

5.1 Test Results

Test Standard	Performance Criteria	Result
IEC61000-4-2:1995+A1:1998+A2:2000	**B**	**PASS**
IEC61000-4-3:2006+A1:2007	**A**	**PASS**
IEC61000-4-4:2004	**B**	**PASS**
IEC61000-4-5:2005	**B**	**PASS**
IEC61000-4-6: 2008	**A**	**PASS**
IEC61000-4-8 : 2009	**A**	**PASS**
IEC61000-4-11:2004	**C/C/B**	**PASS**

5.2 Performance Criteria Description

Criterion A - The apparatus shall continue to operate as intended. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended.

Criterion B - The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended.

Criterion C - Temporary loss of function is allowed, provided the function is self recoverable or can be restored by the operation of the controls.

5.3 Test of IEC61000-4-2

5.3.1 Methods and Procedures

Standard	Date	Description
IEC61000-4-2	1995+A1:1998+A2:2000	Electrostatic Discharge (ESD)

5.3.2 Test Instruments

Description	Manufacturer	Model No.	Serial No.	Last Calibration Date	Next Calibration Date
ESD Simulator	NoiseKen	ESS-100L/ TC-815R	ESS0635368	Jun. 19, 2009	Jun. 18, 2010
HCP	N/A	1.6 x 0.8 m	N/A	N/A	N/A
VCP	N/A	0.5 x 0.5 m	N/A	N/A	N/A
Ground Reference Plane	N/A	6.5 x 3.5 m	N/A	N/A	N/A

5.3.3 Test Site

SGS Taiwan LTD. Electronics & Communication Laboratory
No.134, Wu Kung Road. Wuku Industrial Zone, Taipei County 248, Taiwan (R.O.C.)

5.3.4 EUT Operating Condition

Environment :

Temperature	Humidity
28 °C	59 %RH

Test setup : Please refer to photo of ESD testing set-up

Model of Adapter :3A-183WP-12
Added Model(s) of Adapter : 3A-181WP-12

5.3.5 Results of Electrostatic Discharge Test (ESD)

Basic Standard : IEC61000-4-2
Discharge Impedance : 330 ohm / 150 pF
Discharge Voltage : Air Discharge : ±2, 4, 8, 15 KV
Contact Discharge : ±2, 4, 8 kV
HCP/VCP : ±2, 4, 8 kV
Polarity : Positive/Negative
Number of Discharge : 25 times at each test point
Discharge Mode : Single Discharge
Discharge Period : 1 second

Note 1 : For contact discharge, the EUT shall be exposed to at least 200 discharges, 100 each at negative and positive polarity. All tests according to sec. 4.2.1 of EN55024 : 1998+A1:2001+A2:2003.

A. Observations :

Test points: 1. LED. 2. MIC Jack. 3. Speaker Jack. 4. DC input jack. 5. RJ45 PORT. 6. Control button. 7. Case/screw/bracket.

Direct Application			Test Results	
Discharge Level (kV)	Polarity (+/-)	Test Point	Contact Discharge	Air Discharge
2, 4, 8, 15	+/-	1 ~ 7	N/A	A
2, 4, 8	+/-	7	A	N/A

Remark: A : No degradation of performance or loss of function.
N/A : Not Applicable.

B. Observations :

Test points: 1. Front side. 2. Rear side. 3. Left side. 4. Right side.

Indirect Application			Test Results	
Discharge Level (kV)	Polarity (+/-)	Test Point	Horizontal Coupling	Vertical Coupling
2, 4, 8	+/-	1 - 4	A	A

Remark: A : No degradation of performance or loss of function.
N/A : Not Applicable.

5.4 Test of IEC61000-4-3

5.4.1 Methods and Procedures

Standard	Date	Description
IEC61000-4-3	2006+A1:2007	Radio-Frequency Electromagnetic Field Susceptibility Test, RS

5.4.2 Test Instruments

Description	Manufacturer	Model No.	Serial No.	Last Calibration Date	Next Calibration Date
RS Test Site	Chance Most	8*4*4 Chamber	N/A	Apr. 10, 2009	Apr. 09, 2010
Signal Generator	Agilent	E4438C	MY45093613	May. 22 , 2009	May. 21, 2010
Power Amplifier(200-1000MHz)	OPHIR	5127FE	1050	N/A	N/A
Power Amplifier(800-2500MHz)	FRANKONIA	FLG-50B	1011	N/A	N/A
Power Amplifier(1000-3000MHz)	OPHIR	3814FE	N/A	N/A	N/A
Relay Switching Unit	FRANKONIA	RSU-3203	113A3122	N/A	N/A
Remote RF Switch	Audix	r2S1216	2008040801	N/A	N/A
Turn Table	Chance Most	N/A	N/A	N/A	N/A
Antenna Tower	Chance Most	N/A	N/A	N/A	N/A
Controller	Chance Most	886	N/A	N/A	N/A
Log-Per Broad band Antenna	Schwarzbeck	VUSLP9111E	N/A	N/A	N/A
Strength Field Meter	Wandel & Goltermann	EMR-30	M-0006	Feb. 20, 2009	Feb. 19, 2010

5.4.3 Test Site

SGS Taiwan LTD. Electronics & Communication Laboratory
No.134, Wu Kung Road. Wuku Industrial Zone, Taipei County 248, Taiwan (R.O.C.)

Model of Adapter : 3A-183WP-12

5.4.4 EUT Operating Condition

Environment :

Temperature	Humidity
27 °C	57 %RH

Test setup : Please refer to photo of RS testing set-up

5.4.5 Results of Radiated Radio Frequency Electromagnetic (RS)

Basic Standard : IEC61000-4-3
Frequency range : 80 MHz - 1000 MHz
Field strength : 3 V/m
Modulation : 80% AM (1KHz)
Frequency step : 1 % of fundamental
Polarity of Antenna : Horizontal and Vertical
Dwell Time : 3 seconds
Test distance : 3 m

No.	Frequency (MHz)	Antenna Orientation	Observation	EUT Orientation
1	80 - 1000	Vertical/Horizontal	A	0 degree
2	80 - 1000	Vertical/Horizontal	A	90 degree
3	80 - 1000	Vertical/Horizontal	A	180 degree
4	80 - 1000	Vertical/Horizontal	A	270 degree

Remark: A : No degradation of performance or loss of function.
N/A : Not Applicable.

Added Model(s) of Adapter : 3A-181WP-12

5.4.6 EUT Operating Condition

Environment :

Temperature	Humidity
28 °C	57 %RH

Test setup : Please refer to photo of RS testing set-up

5.4.7 Results of Radiated Radio Frequency Electromagnetic (RS)

Basic Standard : IEC61000-4-3
Frequency range : 80 MHz - 1000 MHz
Field strength : 3 V/m
Modulation : 80% AM (1KHz)
Frequency step : 1 % of fundamental
Polarity of Antenna : Horizontal and Vertical
Dwell Time : 3 seconds
Test distance : 3 m

No.	Frequency (MHz)	Antenna Orientation	Observation	EUT Orientation
1	80 - 1000	Vertical/Horizontal	A	0 degree
2	80 - 1000	Vertical/Horizontal	A	90 degree
3	80 - 1000	Vertical/Horizontal	A	180 degree
4	80 - 1000	Vertical/Horizontal	A	270 degree

Remark: A : No degradation of performance or loss of function.
N/A : Not Applicable.

5.5 Test of IEC61000-4-4

5.5.1 Methods and Procedures

Standard	Date	Description
IEC61000-4-4	2004	Electrical fast transient/burst requirements

5.5.2 Test Instruments

Description	Manufacturer	Model No.	Serial No.	Last Calibration Date	Next Calibration Date
EMS Multi-Tester	EMC Partner	TRANSIENT 2000	648	Feb. 02, 2009	Feb. 01, 2010
Clamp	EMC Partner	CN-EFT1000	469	N/A	N/A

5.5.3 Test Site

SGS Taiwan LTD. Electronics & Communication Laboratory
No.134, Wu Kung Road. Wuku Industrial Zone, Taipei County 248, Taiwan (R.O.C.)

Model of Adapter : 3A-183WP-12

5.5.4 EUT Operating Condition

Environment :

Temperature	Humidity
28 °C	59 %RH

Test setup : Please refer to photo of EFT testing set-up

5.5.5 Results of Electrical Fast Transient (EFT)

Basic Standard : IEC61000-4-4
Test Voltage : AC Input/Output : ± 1 Kv
Signal/Comm. : ± 0.5 Kv
Polarity : Positive/Negative
Impulse Frequency : 5 kHz
Tr/Tn : 5/50ns
Burst : 15ms/300ms

Observation :

Test Point	Polarity	Test Level (Kv)	Results
L	+/-	1	A
N	+/-	1	A
L-N	+/-	1	A
Signal/Comm.	+/-	0.5	A

Remark: A : No degradation of performance or loss of function.
N/A : Not Applicable.

Added Model(s) of Adapter : 3A-181WP-12

5.5.6 EUT Operating Condition

Environment :

Temperature	Humidity
28 °C	57 %RH

Test setup : Please refer to photo of EFT testing set-up

5.5.7 Results of Electrical Fast Transient (EFT)

Basic Standard : IEC61000-4-4
Test Voltage : AC Input/Output : ± 1 Kv
Signal/Comm. : ± 0.5 Kv
Polarity : Positive/Negative
Impulse Frequency : 5 kHz
Tr/Tn : 5/50ns
Burst : 15ms/300ms

Observation :

Test Point	Polarity	Test Level (Kv)	Results
L	+/-	1	A
N	+/-	1	A
L-N	+/-	1	A
Signal/Comm.	+/-	0.5	A

Remark: A : No degradation of performance or loss of function.
N/A : Not Applicable.

5.6 Test of IEC61000-4-5

5.6.1 Methods and Procedures

Standard	Date	Description
IEC61000-4-5	2005	Surge immunity test

5.6.2 Test Instruments

Description	Manufacturer	Model No.	Serial No.	Last Calibration Date	Next Calibration Date
EMS Multi-Tester	EMC Partner	TRANSIENT 2000	648	Feb. 02, 2009	Feb. 01, 2010
Universal Surge CDN	EMC Partner	CDN-UTP	015	Feb. 02, 2009	Feb. 01, 2010

5.6.3 Test Site

SGS Taiwan LTD. Electronics & Communication Laboratory
No.134, Wu Kung Road. Wuku Industrial Zone, Taipei County 248, Taiwan (R.O.C.)

Model of Adapter : 3A-183WP-12

5.6.4 EUT Operating Condition

Environment :

Temperature	Humidity
28 °C	59 %RH

Test setup : Please refer to photo of SURGE testing set-up

5.6.5 Results of Surge Test

Test Rate : 1 pulse every minute
No. of Tests : 5 positive and 5 negative pulses
Waveform : 1.2/50μs (8/20μs)

Observation Description

AC Power line & Signal line:

Test Point	Phase Angle (degree)	Polarity (+/-)	Test Level (kV)	Observation
L – N	0, 90, 180, 270	+/-	1	A
L – PE	0, 90, 180, 270	+/-	2	N/A
N – PE	0, 90, 180, 270	+/-	2	N/A
BNC	N/A	+/-	1	A

Remark: A : No degradation of performance or loss of function.
B : During testing, the EUT have stop. Testing complete, it can return to normal operation
N/A : Not Applicable.

Test Rate : 1 pulse every minute
No. of Tests : 5 positive and 5 negative pulses
Waveform : 10/700μs

Observation Description

Telecommunication line:

Test Point	Phase Angle (degree)	Polarity (+/-)	Test Level (kV)	Observation
LAN	N/A	+/-	1	A
POE LAN	N/A	+/-	1	B

Remark: A : No degradation of performance or loss of function.
B : During testing, the EUT have stop. Testing complete, it can return to normal operation
N/A : Not Applicable.

Added Model(s) of Adapter : 3A-181WP-12

5.6.6 EUT Operating Condition

Environment :

Temperature	Humidity
28 °C	57 %RH

Test setup : Please refer to photo of SURGE testing set-up

5.6.7 Results of Surge Test

Test Rate : 1 pulse every minute
No. of Tests : 5 positive and 5 negative pulses
Waveform : 1.2/50μs (8/20μs)

Observation Description

AC Power line & Signal line:

Test Point	Phase Angle (degree)	Polarity (+/-)	Test Level (kV)	Observation
L – N	0, 90, 180, 270	+/-	1	A
L – PE	0, 90, 180, 270	+/-	2	N/A
N – PE	0, 90, 180, 270	+/-	2	N/A

Remark: A : No degradation of performance or loss of function.
B : During testing, the EUT have stop. Testing complete, it can return to normal operation.
N/A : Not Applicable.

Test Rate : 1 pulse every minute
No. of Tests : 5 positive and 5 negative pulses
Waveform : 10/700μs

Observation Description

Telecommunication line:

Test Point	Phase Angle (degree)	Polarity (+/-)	Test Level (kV)	Observation
LAN	N/A	+/-	1	A
POE LAN	N/A	+/-	1	B

Remark: A : No degradation of performance or loss of function.
B : During testing, the EUT have stop. Testing complete, it can return to normal operation
N/A : Not Applicable.

5.7 Test of IEC61000-4-6

5.7.1 Methods and Procedures

Standard	Date	Description
IEC61000-4-6	2008	Immunity to conducted disturbances, induced by radio-frequency fields.

5.7.2 Test Instruments

Description	Manufacturer	Model No.	Serial No.	Last Calibration Date	Next Calibration Date
CS Test Site	N/A	N/A	N/A	Apr. 10, 2009	Apr. 09, 2010
Signal Generator	ROHDE&SCHWARZ	SMY01	844146/016	Dec. 11, 2009	Dec. 10, 2010
RF Power Amplifier	Kalmus	116FC-CE	8380-1	N/A	N/A
6dB-PowerAttenuator	Bird	25-A-MFN-06	9731	N/A	N/A
Coaxial Cables	N/A	No. 15-17, 21-23	N/A	N/A	N/A
CDN (2 Pin)	COMTEST	4412-16	9743	Feb. 13, 2009	Feb. 12, 2010
EM Injection Clamp	FCC	F-203I-23MM	479	N/A	N/A

5.7.3 Test Site

SGS Taiwan LTD. Electronics & Communication Laboratory
No.134, Wu Kung Road. Wuku Industrial Zone, Taipei County 248, Taiwan (R.O.C.)

Model of Adapter : 3A-183WP-12

5.7.4 EUT Operating Condition

Environment :

Temperature	Humidity
27 °C	58 %RH

Test setup : Please refer to photo of CS testing set-up

5.7.5 Results of Immunity to Conducted Disturbances (CS)

Basic Standard : IEC61000-4-6
Frequency range : 0.15 MHz - 80 MHz
Field strength : 3 V/rms
Modulation : 80% AM, 1 kHz Sinewave
Frequency step : 1 % of fundamental
Dwell Time : 3 seconds
Coupling Method : CDN 2 Lines/Clamp

Cable Description	Frequency (MHz)	Observation
AC input	0.15 – 80	A

Signal Ports

Cable Description	Frequency (MHz)	Observation
Signal/Comm.	0.15 – 80	A

Remark: A : No degradation of performance or loss of function.

N/A : Not Applicable.

Added Model(s) of Adapter : 3A-181WP-12

5.7.6 EUT Operating Condition

Environment :

Temperature	Humidity
27 °C	57 %RH

Test setup : Please refer to photo of CS testing set-up

5.7.7 Results of Immunity to Conducted Disturbances (CS)

Basic Standard : IEC61000-4-6
Frequency range : 0.15 MHz - 80 MHz
Field strength : 3 V/rms
Modulation : 80% AM, 1 kHz Sinewave
Frequency step : 1 % of fundamental
Dwell Time : 3 seconds
Coupling Method : CDN 2 Lines/Clamp

Cable Description	Frequency (MHz)	Observation
AC input	0.15 – 80	A

Signal Ports

Cable Description	Frequency (MHz)	Observation
Signal/Comm.	0.15 – 80	A

Remark: A : No degradation of performance or loss of function.

N/A : Not Applicable.

5.8 Test of IEC61000-4-8

5.8.1 Methods and Procedures

Standard	Date	Description
IEC61000-4-8	2009	Power Frequency Magnetic Field Immunity Test

5.8.2 Test Instruments

Description	Manufacturer	Model No.	Serial No.	Last Calibration Date	Next Calibration Date
EMS Multi-Tester	EMC Partner	Transient 2000	648	Feb. 02, 2009	Feb. 01, 2010
PMF Antenna	EMC Partner	MF-1000	MF-1000-2 -07	Feb. 02, 2009	Feb. 01, 2010

5.8.3 Test Site

SGS Taiwan LTD. Electronics & Communication Laboratory
No.134, Wu Kung Road. Wuku Industrial Zone, Taipei County 248, Taiwan (R.O.C.)

Model of Adapter : 3A-183WP-12

5.8.4 EUT Operating Condition

Environment :

Temperature	**Humidity**
28 °C	59 %RH

Test setup: Please refer to photo of PRMF testing set-up

5.8.5 Result of Immunity to power Frequency Magnetic

Basic Standard: IEC61000-4-8 : 2009
Power Frequency:50 Hz
Magnetic Field: 1 A/m(r.m.s)
Observation: A

Remark: A : No degradation of performance or loss of function.
N/A : Not Applicable.

Added Model(s) of Adapter : 3A-181WP-12

5.8.4 EUT Operating Condition

Environment :

Temperature	Humidity
28 °C	57 %RH

Test setup: Please refer to photo of PRMF testing set-up

5.8.5 Result of Immunity to power Frequency Magnetic

Basic Standard: IEC61000-4-8 : 2009
Power Frequency:50 Hz
Magnetic Field: 1 A/m(r.m.s)
Observation: A

Remark: A : No degradation of performance or loss of function.
N/A : Not Applicable.

5.9 Test of IEC61000-4-11

5.9.1 Methods and Procedures

Standard	Date	Description
IEC61000-4-11	2004	Voltage dips, short interruptions and voltage variations immunity tests

5.9.2 Test Instruments

Description	Manufacturer	Model No.	Serial No.	Last Calibration Date	Next Calibration Date
EMS Multi-Tester	EMC Partner	TRANSIENT 2000	648	Feb. 02 , 2009	Feb. 01 , 2010

5.9.3 Test Site

SGS Taiwan LTD. Electronics & Communication Laboratory
No.134, Wu Kung Road. Wuku Industrial Zone, Taipei County 248, Taiwan (R.O.C.)

Model of Adapter : 3A-183WP-12

5.9.4 EUT Operating Condition

Environment :

Temperature	Humidity
28 °C	59 %RH

Test setup : Please refer to photo of DIP testing set-up

5.9.5 Results of Voltage Dips Immunity Test

EUT Rated Voltage : 230 Volts.
Voltage : 30, 95 % Ut
Phase Angle : 0,180 degree
Total events: 3 dropouts
Event interval : 10 seconds

Environmental phenomena	Test specification	Duration (in periods of the rated frequency)	Observation
Interruptions	>95	250	B
Voltage dips	>95	0.5	A
	30	25	A

Remark: A : No degradation of performance or loss of function.
B : During testing, the EUT have stop. Testing complete, it can return to normal operation.
N/A : Not Applicable.

Added Model(s) of Adapter : 3A-181WP-12

5.9.4 EUT Operating Condition

Environment :

Temperature	Humidity
28 °C	57 %RH

Test setup : Please refer to photo of DIP testing set-up

5.9.5 Results of Voltage Dips Immunity Test

EUT Rated Voltage : 230 Volts.
Voltage : 30, 95 % Ut
Phase Angle : 0,180 degree
Total events: 3 dropouts
Event interval : 10 seconds

Environmental phenomena	Test specification	Duration (in periods of the rated frequency)	Observation
Interruptions	>95	250	B
Voltage dips	>95	0.5	A
	30	25	A

Remark: A : No degradation of performance or loss of function.
B : During testing, the EUT have stop. Testing complete, it can return to normal operation.
N/A : Not Applicable.

APPENDIX - Constructional Details

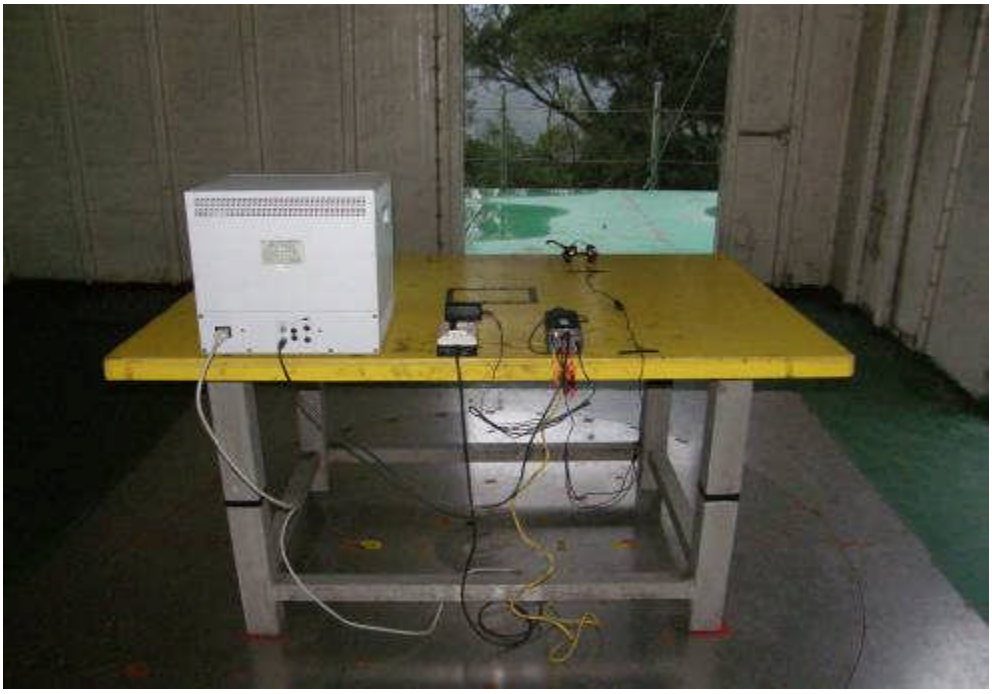
Photograph of Testing General Set-up

CE Testing Set-up

ISN Testing Set-up

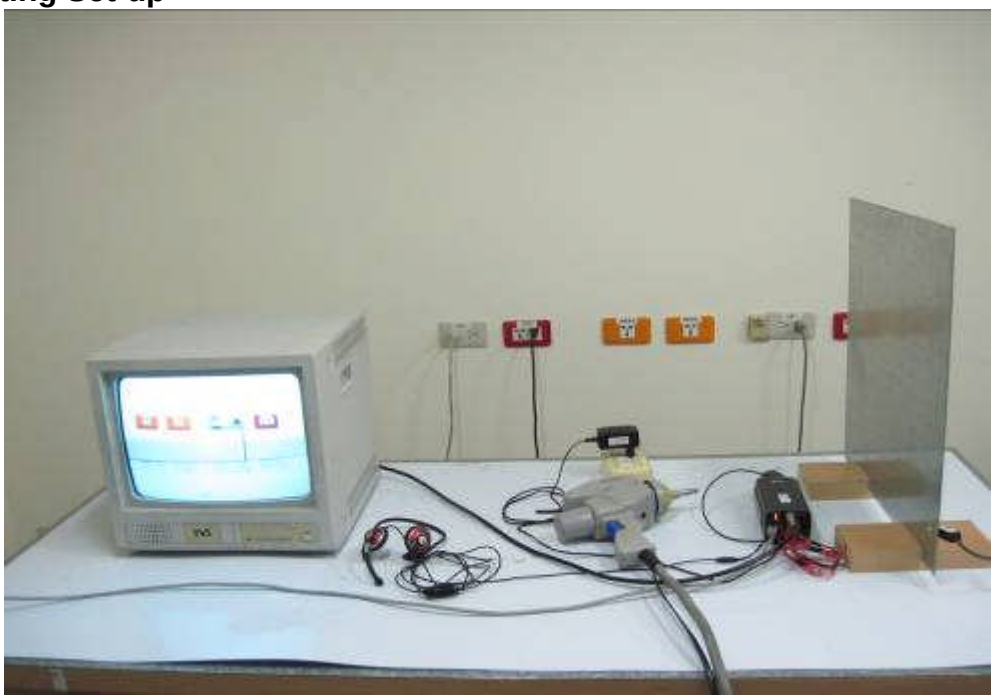
ISN (POE)Testing Set-up

RE Testing Set-up

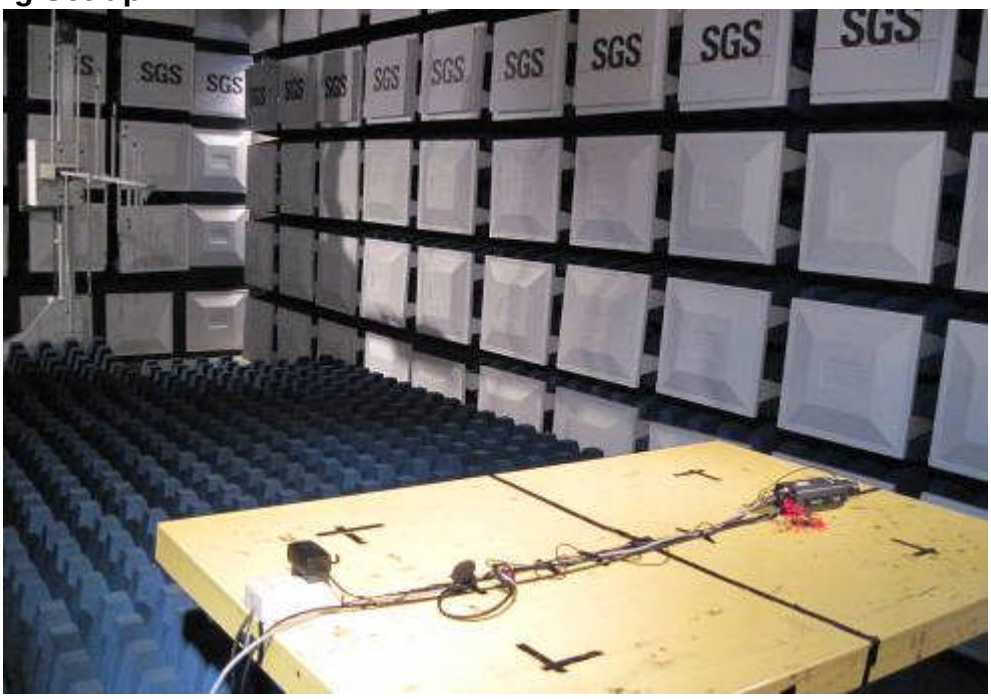


HARMONIC & FLICEKR Testing Set-up

ESD Testing Set-up



RS Testing Set-up



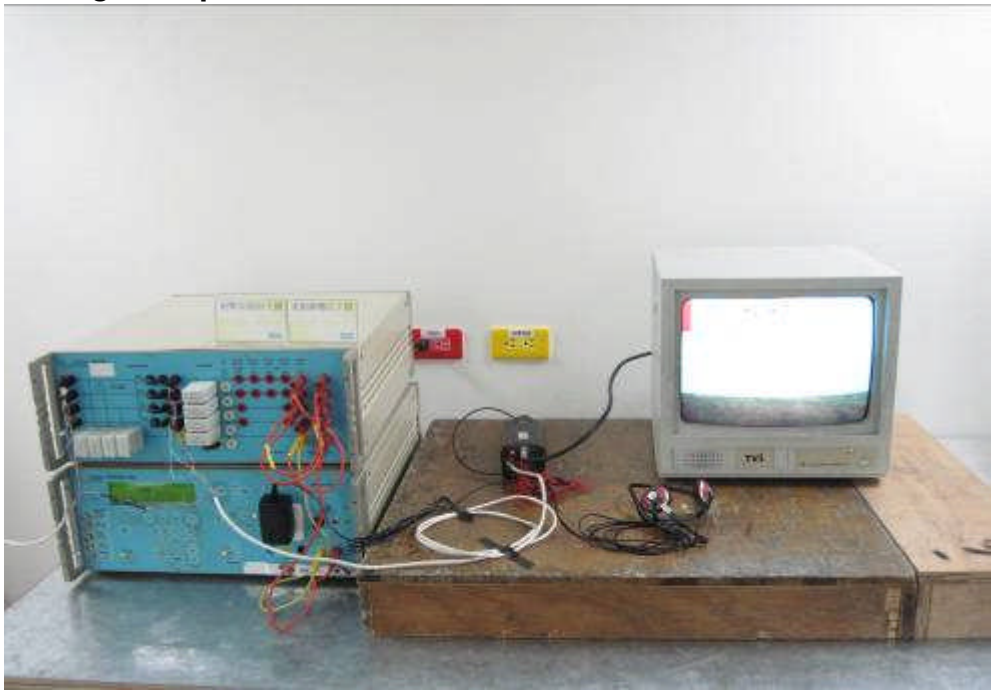
EFT Testing Set-up

EFT Testing Set-up(BNC Clamp)

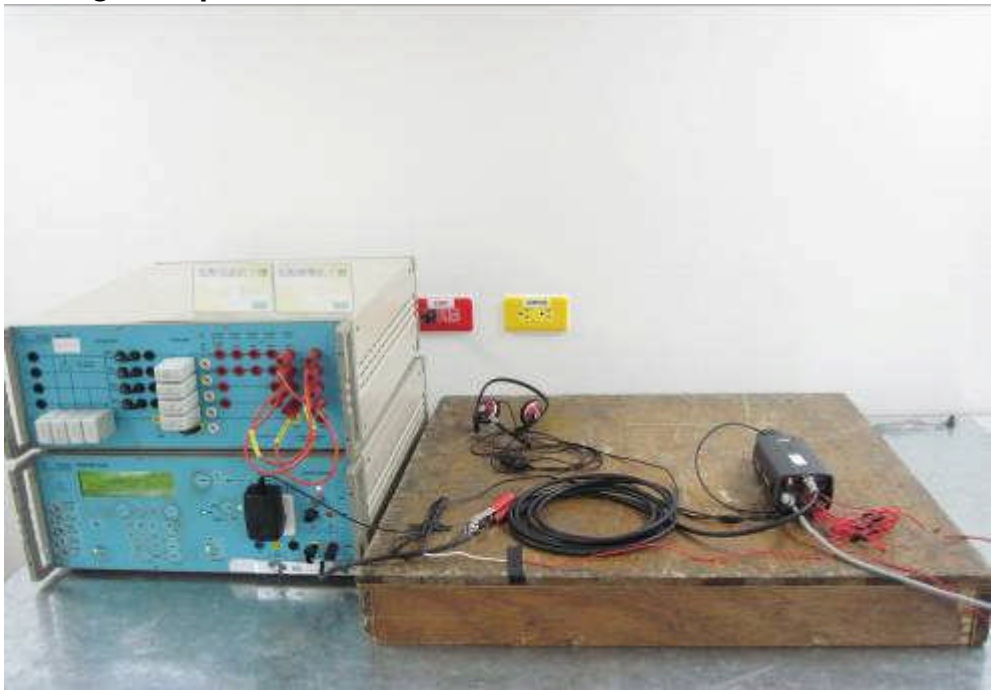
EFT Testing Set-up(LAN Clamp)

SURGE Testing Set-up

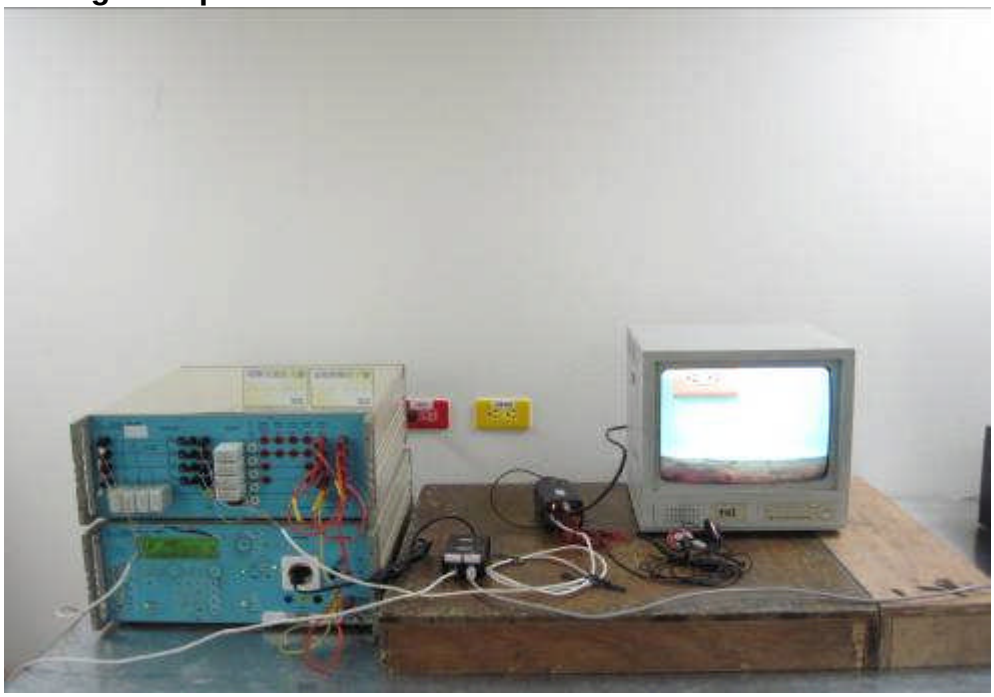
SURGE Testing Set-up-Lan



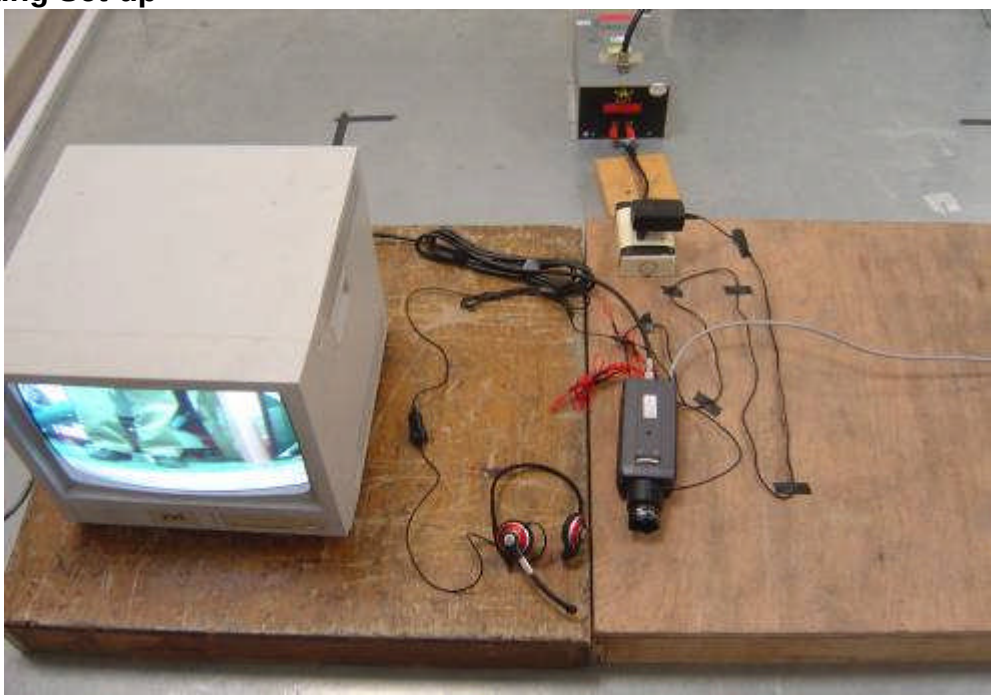
SURGE Testing Set-up-BNC Cable



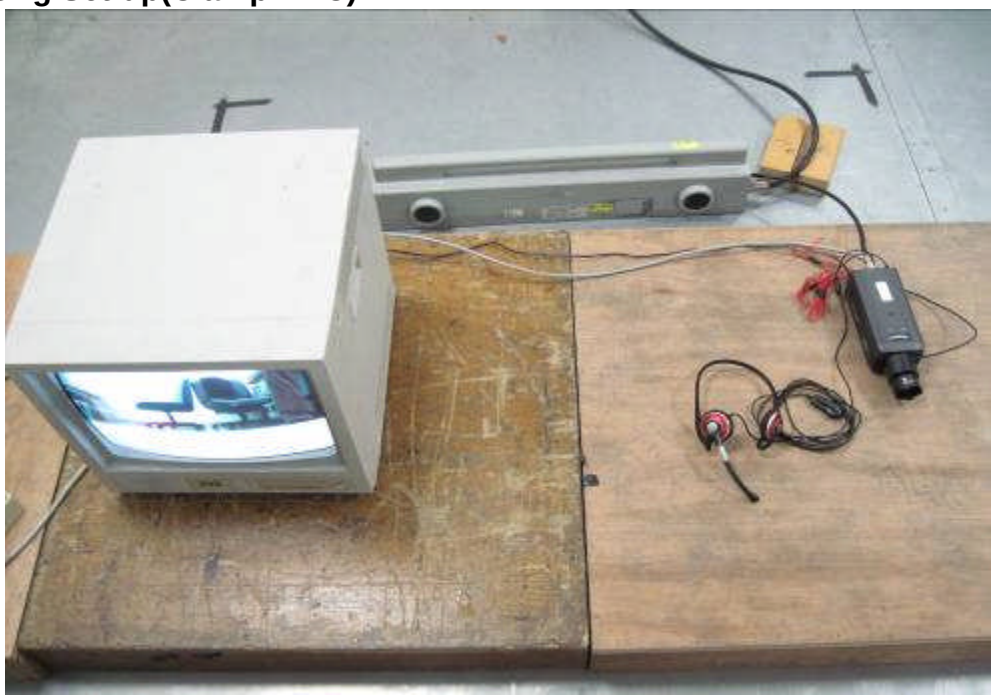
SURGE Testing Set-up-POE Lan



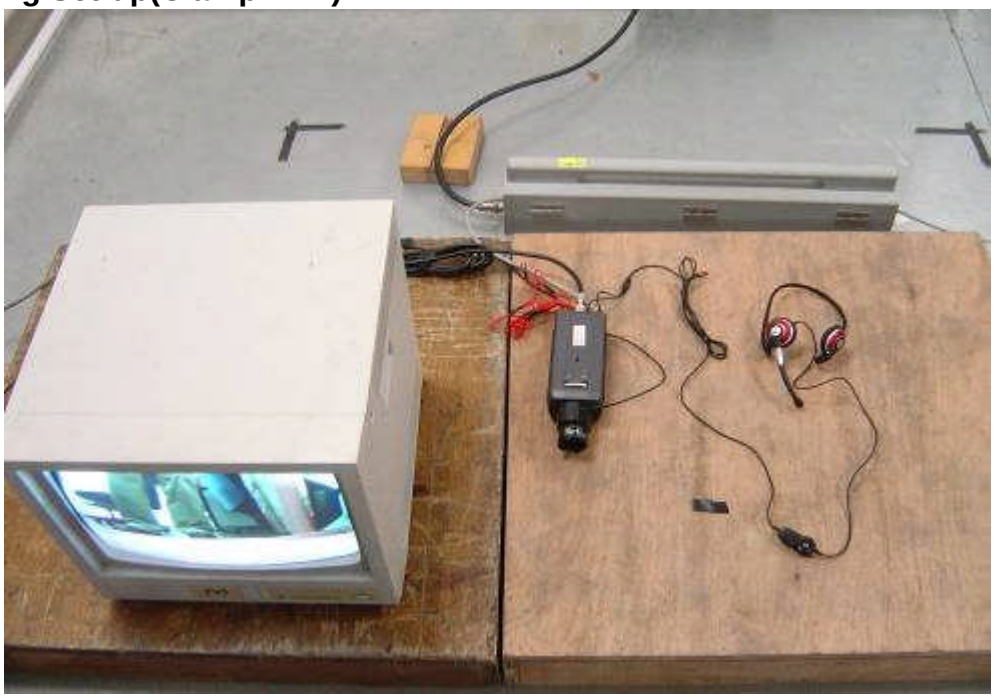
CS Testing Set-up



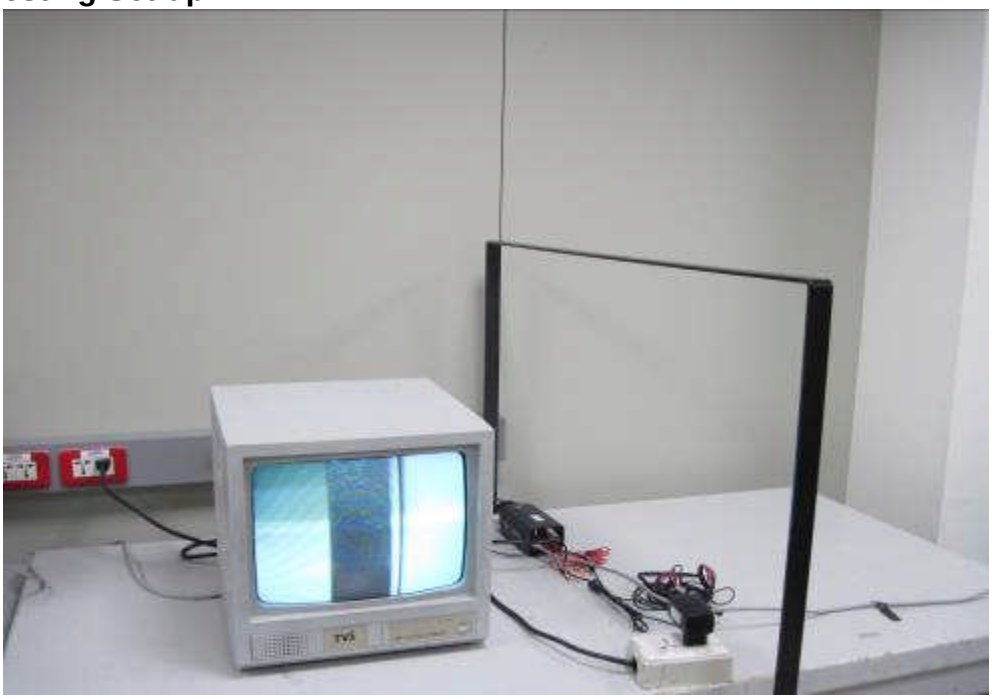
CS Testing Set-up(Clamp BNC)



CS Testing Set-up(Clamp LAN)



PMF Testing Set-up



DIP Testing Set-up

Photographs of EUT Unit

Exterior:

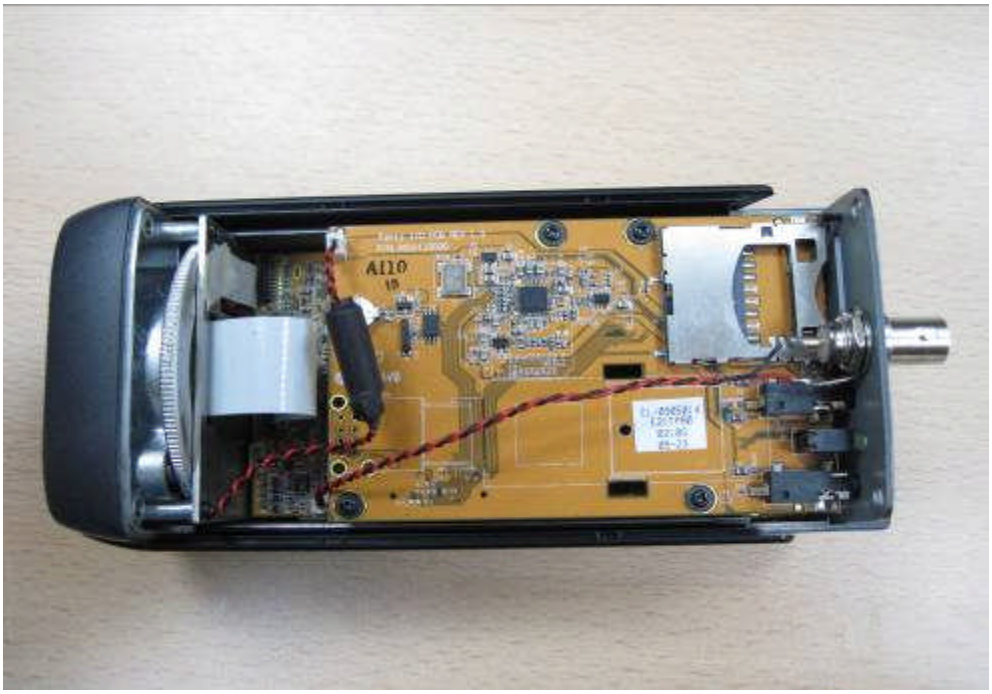

Video
Out
SD Card
Mic
Audio
Out
Ethernet
Reset
1 2 3 4 5 6 7 8 12V 1.5A

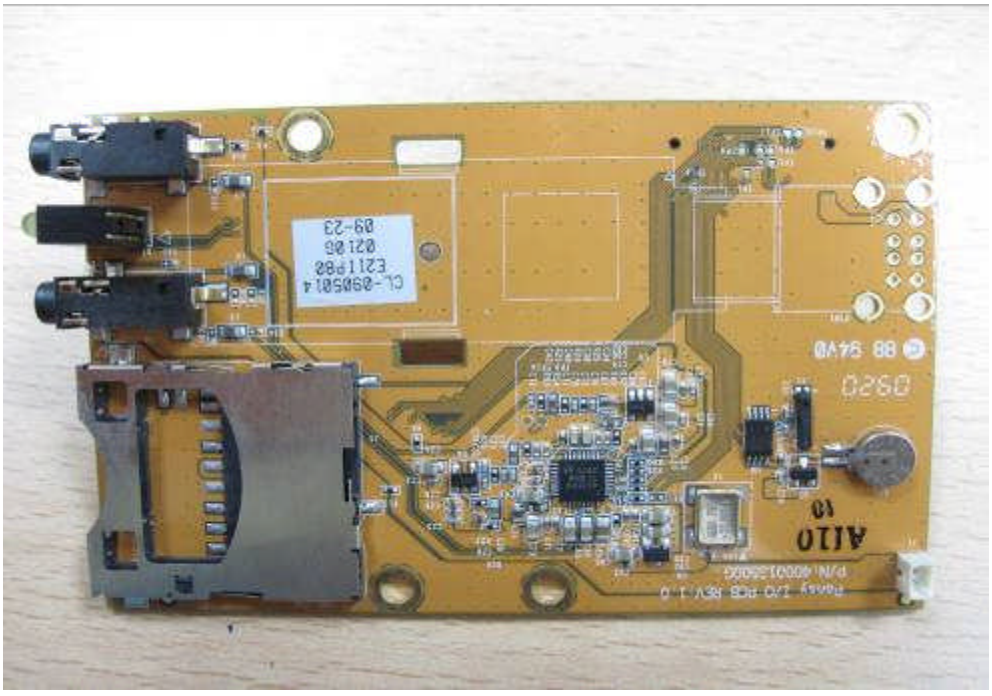

VIVOTEK

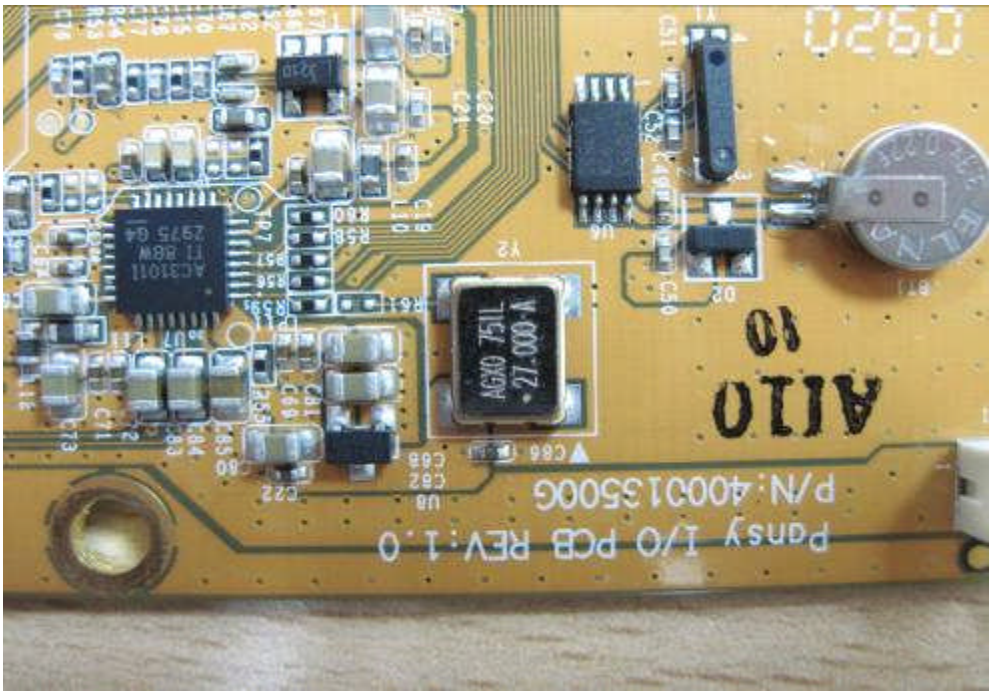

Network Camera
VIVOTEK
Model No: IP8161
MAC: 0002D10994F5
N1879
RoHS
Made in Taiwan


SWITCH-MODE
POWER SUPPLY
MODEL:3A-181WP12
INPUT:100-240V~, 50-60Hz, 0.6A
OUTPUT:12V ⎓ 1.5A
FOR I.T.E. USE ONLY
c UL us
LISTED
E163743
EFFICIENCY LEVEL IV
0937 A
MADE IN CHINA

Interior:



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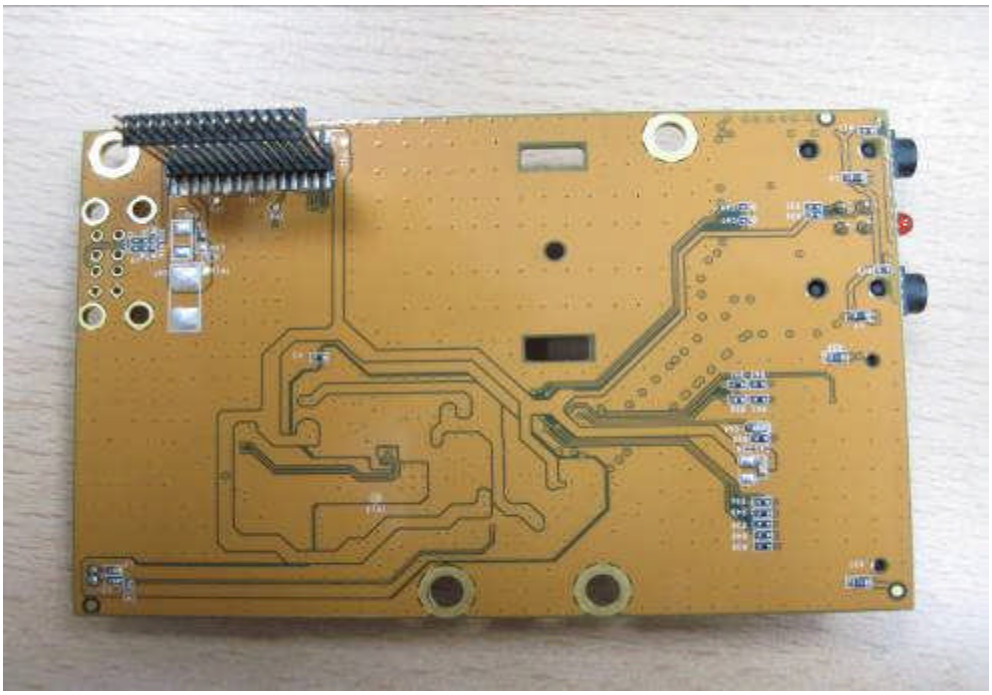

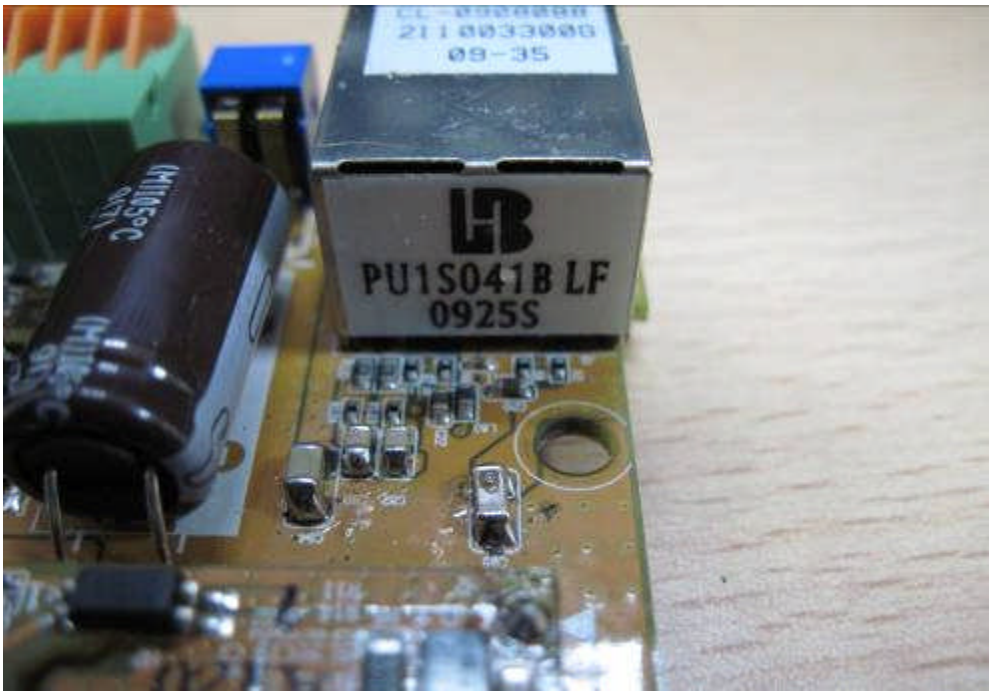
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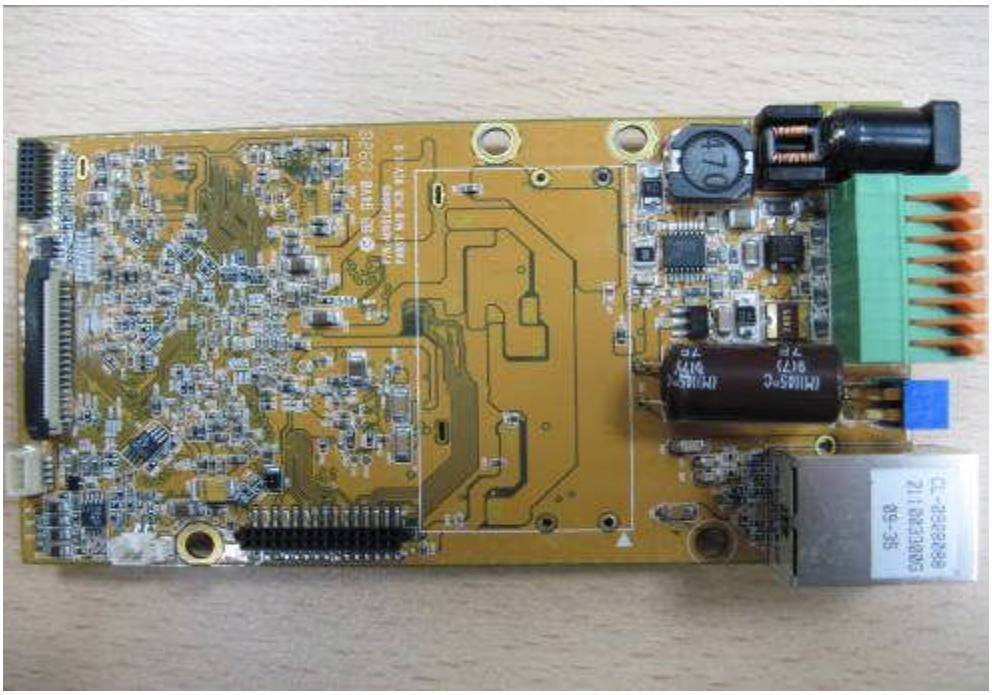

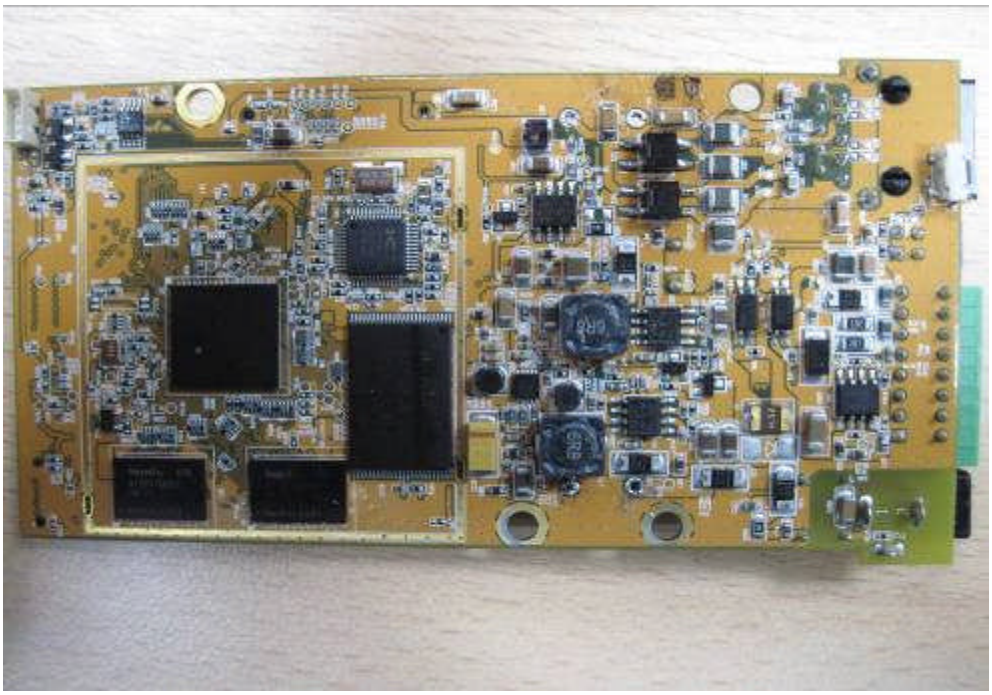

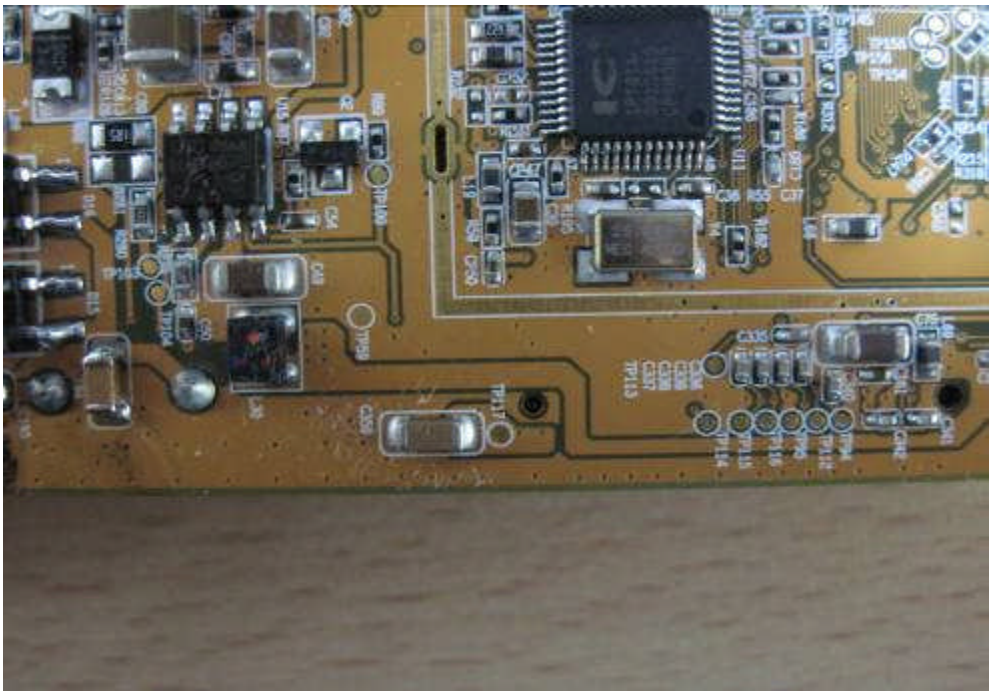

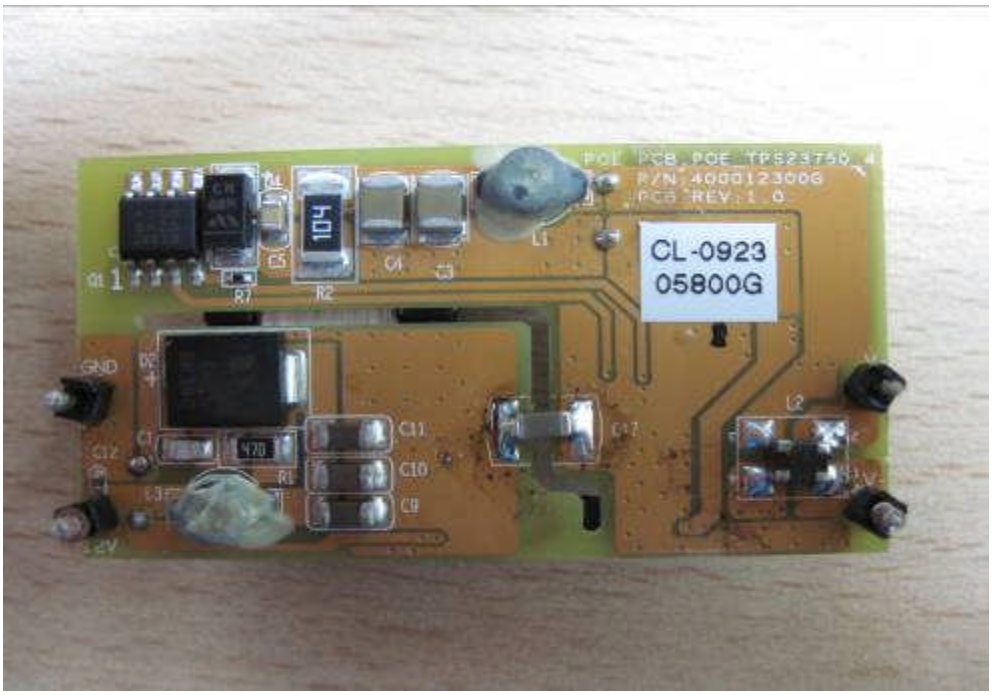
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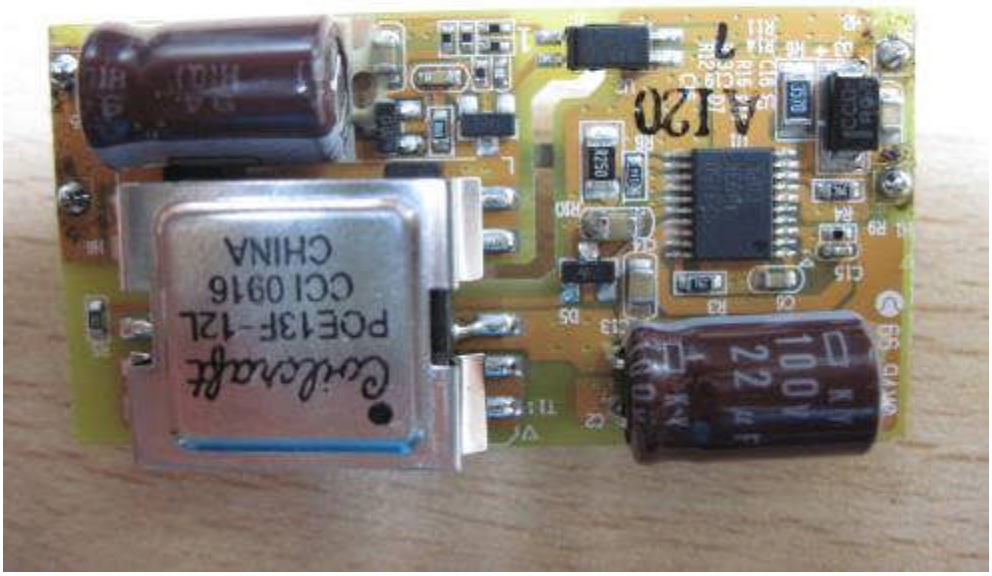
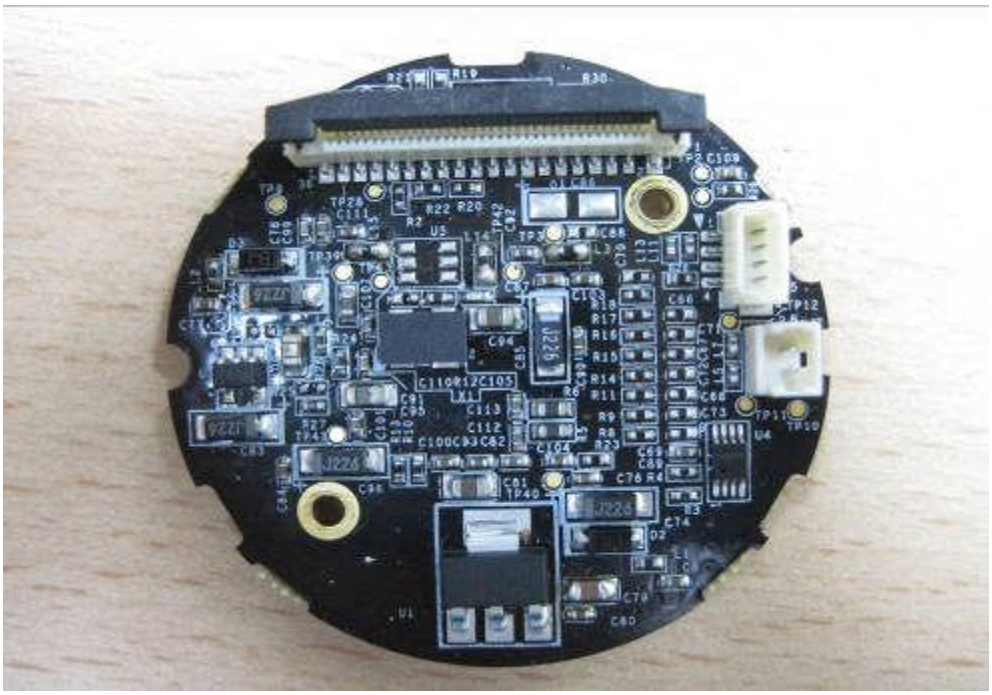
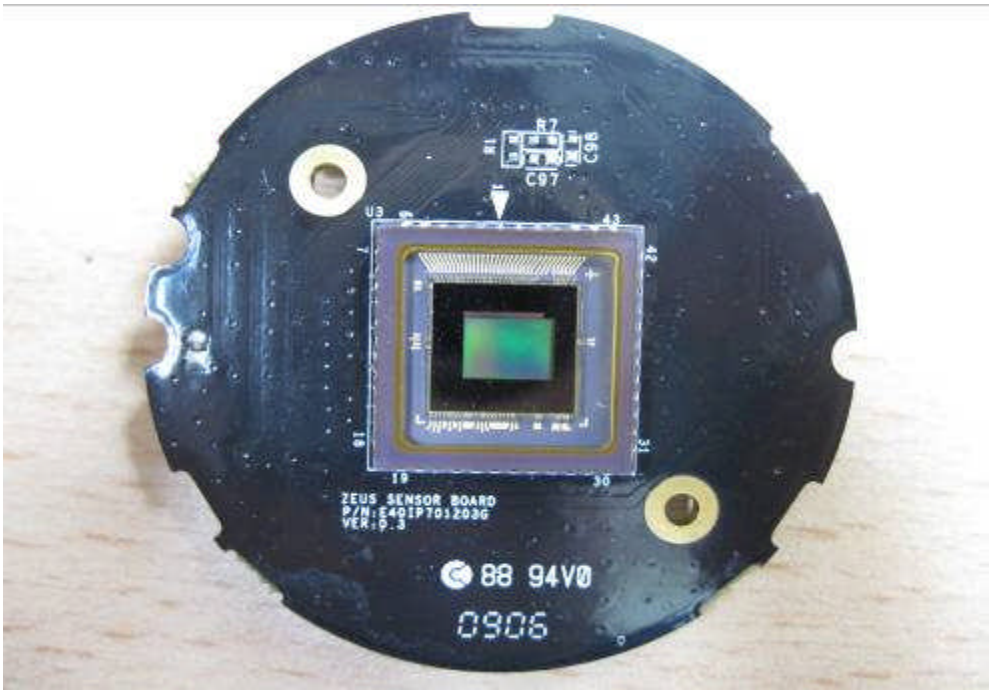

CHINA
CCI 0916
POE13F-12L
A120





** End of Report **