TRC

Certificate of Compliance

Training Research Co., Ltd.

hereby certifies that

EMC TEST

Day/Night Vandal-Proof Network Dome Camera

Model: FD6111V, FD6112V, FD6121V, FD6122V

Made by

VIVOTEK INC.

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

EU Directive: 89/336/EEC, 92/31/EEC, 93/68/EEC

C-Tick: AS/NZS CISPR 22:2002
EMI: EN 55022/1998+A1:2000+A2:2003, Class B,
EN61000-3-2:2000, EN61000-3-3:1995+A1:2001
EMS: EN 55024/1998+A1:2001+A2:2003→ IEN 61000-4-2/2001, IEN 61000-4-3/2002+A1/2002,
IEC 61000-4-4/1995+A1/2000+A2/2001,
IEC 61000-4-5/2001, IEC 61000-4-6/2003,
IEC 61000-4-8/2001, IEC 61000-4-11/2001
In Compliance with the essential requirements

Test Date: June 21, 2005

Certificate Registration No.: V16CE050429

June 24, 2005

CE

Frank Tsai

General Manager, Frank Tsai

The manufacturer or his European authorized representative can verify compliance with the EMC Directive in his EC Declaration of Conformity

Training Research Co., Ltd. (NVLAP LAB CODE: 200174-0)

Report No.	V16CE050429
Directives	89/336/EEC,92/31/EEC.,93/68/EEC EMC, Class B
Standard	EN 55022/EN 55024 (CE), AS/NZS CISPR 22
Applicant	VIVOTEK INC.
Applicant address	6F, No. 192, Lien-Cheng Rd., Chung-Ho, Taipei County, Taiwan, R.O.C.
Items tested	Day/Night Vandal-Proof Network Dome Camera
Model No.	FD6111V, FD6112V, FD6121V, FD6122V
Sample No.	V16050429
Results	**Compliance** (As detailed within this report)
Date	06/09/2005 (month / day / year)(Sample received) 06/21/2005 (month / day / year)(Tested)
Prepared by	Project Engineer
Authorized by	General Manager (Frank Tsai)
Issue date	June 24, 2005 (month / day / year)
Modifications	**None**
Tested by	Training Research Co., Ltd. **(Accredited by NVLAP)**
Office at	1F, No. 255, Nan Yang Street, Hsichih, Taipei Hsien 221, Taiwan
Open site at	No. 15, Lane 530, Pa-Lian RD., Sec. 1, Hsichih City, Taipei Hsien, Taiwan, R.O.C..

Conditions of issue :

- ***This test report shall not be reproduced except in full, without written approval of TRC. And the test result contained within this report only relate to the sample submitted for testing.***
- ***The test data in this test report are following the procedures in accordance with the terms of accreditation.***
- ***This test report and measurements made by TRC are traceable to the NIST only Conducted and Radiated Method (TRC is accredited by NVLAP, code No.: 200174-0).***
- ***The device has been tested is fully complied with the requirements the Directive 89/336/EEC (CE) and AS/NZS 3548 (C-Tick).***

Contents

Chapter 0 Emission and Susceptibility Standards

Emission Standards

Emission Standard	European Standard	International Standard
(X)	EN 61000-6-3	IEC 61000-6-1
( )	EN 61000-6-4	IEC 61000-6-1
( )	EN 50081-1	
( )	EN 50081-1	
( )	EN 55014	CISPR 14
( )	EN 55015	CISPR 15
( )	EN 55013	CISPR 13
(X)	EN 55022	CISPR 22
(X)	EN 61000-3-2	IEC 61000-3-2
(X)	EN 61000-3-3	IEC 61000-3-3

Susceptibility Standards

Susceptibility Standard	European Standard	International Standard
(X)	EN 61000-6-1	IEC 61000-6-1
( )	EN 61000-6-2	IEC 61000-6-1
( )	EN 50082-1	
( )	EN 50082-2	
(X)	EN 55024	CISPR 24
( )	EN 55020	CISPR 20
(X)	EN 61000-4-2	IEC 61000-4-2
(X)	EN 61000-4-3	IEC 61000-4-3
(X)	EN 61000-4-4	IEC 61000-4-4
(X)	EN 61000-4-5	IEC 61000-4-5
(X)	EN 61000-4-6	IEC 61000-4-6
(X)	EN 61000-4-8	IEC 61000-4-8
(X)	EN 61000-4-11	IEC 61000-4-11

Chapter 1 Introduction

Description of EUT:

The EUT is Day/Night Vandal-Proof Network Dome Camera, has four model numbers: FD6111V, FD6112V, FD6121V, FD6122V, feature as below:

- MPEG4/ MJPEG Video Compression
- Built-in IR LEDs; Night Vision Down to 0 Lux
- Vandal-Proof and Weather-Proof
- 2-Way(Full-Duplex) Audio
- Intelligent Motion Detection
- Pre/ Post Alarm
- Extended I/O for Sensor & Alarm

The EUT has two kinds of lens, FD6111V(FD6112V) and FD6121V (FD6122V).

Two lenses have been verified over each test item.

Test method:

Pretest was found that the emission of operating mode is worse than standby mode. So, The final test is made at the operating mode.

During the pretest, the device was keeping “scanning”. This was the worst case.

During the testing, there are two kinds of test mode are tested:

#1 FD6111V, FD6112V

#2 FD6121V, FD6122V

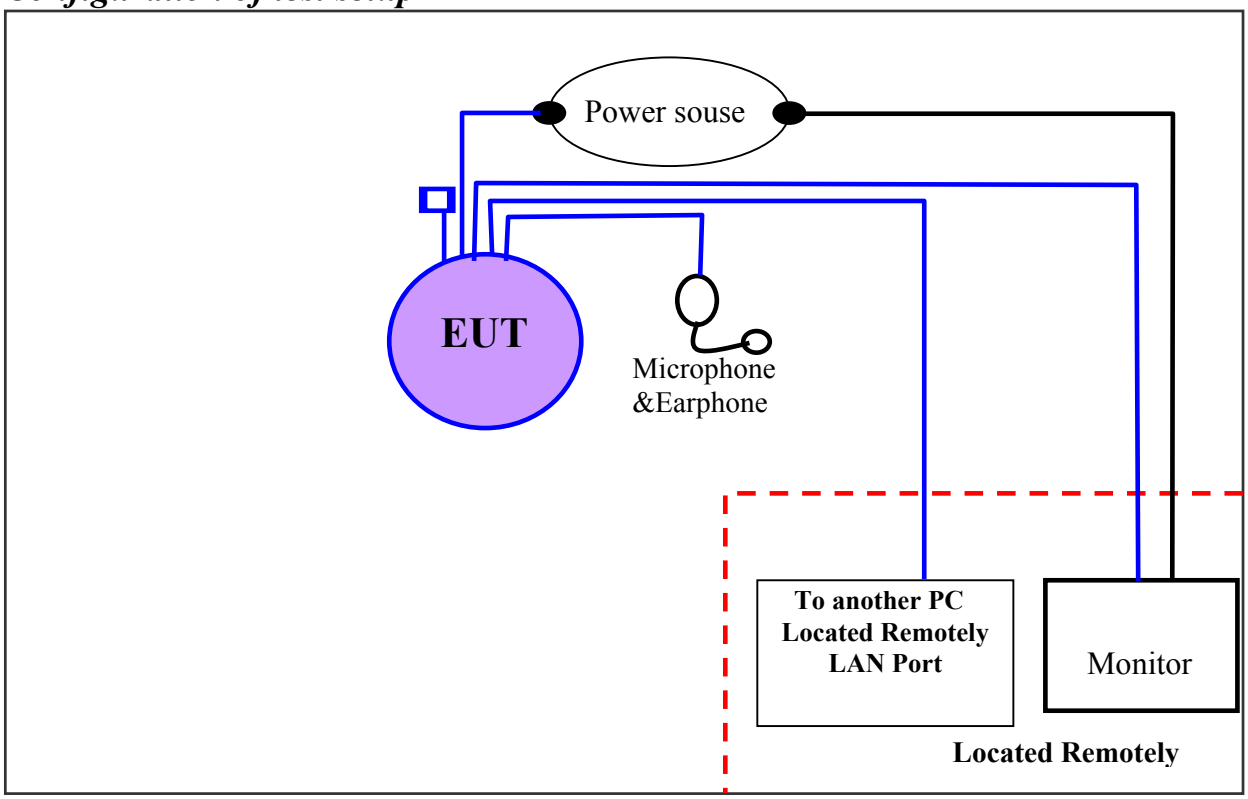
All of the conduction and radiation test results are included in the test report.

The test voltage is 230Vac/ 50Hz.

The test placement as the photographs showed is the worst case emission placed. (If the emission is close to the ambient, the resolution BW and view resolution will be reduced and the data will be recorded by detection of maximum hold peak mode.)

The testing configuration of test setup is showing in the next page.

Configuration of test setup



Connections:

EUT:

*Power Jack --- via a 1.90m length power cable with a ferrite core and with a power adapter to the power source.

*Ethernet Jack --- via a 15 m length data cable connected to the RJ-45 port of the PC that located remotely.

*BNC Jack --- via a 10 m length BNC cable connected to the video output port of the monitor that located remotely.

*Audio-Output Jack --- via a 1.20 m length cable connected to the Microphone & earphone.

*AV Jack --- via a 1.40 m length data cable that terminated.

*I/O Jack --- via a 0.3 m length cable that terminated.

List of support equipment

Monitor	**:**	**SONY TRINITRON COLOR MONITOR**
Model No.	:	PVM-14M4U
Serial No.	:	2019909
FCC ID	:	N/A
Power type	:	120 VAC 50/60 Hz 1.0A
Power cord	:	Non-shielded, 1.79m long, No ferrite core

PC	**:**	**HP Vectra VE**
Model No.	:	D6970A
Serial No.	:	SG53000707
FCC ID	:	Doc Approved
Power type	:	100 ~ 230VAC / 50 ~ 60Hz, 5A, Switching
Power cord	:	Non-shielded, 2.30m long, Plastic, No ferrite core

Microphone & earphone: MBMAGE

Model No.	:	MIC-16
Serial No.	:	N/A
FCC ID	:	Doc Approved
Power cord	:	Non-shielded, 1.80m long, Plastic

Chapter 2 Conducted Emission Test

Test condition and setup:

All the equipment is placed and setup according to the EN 55022.
The EUT is assembled on a wooden table that is 80 cm high, is placed 40 cm from the back-wall that is a vertical conducting plane. One LISN is for EUT, the other LISN is for support equipment. They are all placed on the conductive ground. The EUT's LISN connect a line switch box for selecting L1 or L2, then connect to a preamplifier and spectrum for pretest.

The spectrum measured from 150KHz to 30MHz. Conducted emission levels are detected at max. peak mode. But if the max. peak mode failed or over average limit, it will be measured by QP and average detection mode using the Receiver.

While testing, there is the worst-emission plot printed at peak detection mode, and there are more than 6 highest emissions relative to limit recorded. The plot is kept as the original data, not included in test report.

List of test Instrument :

				Calibration Date	
Instrument Name	**Model No.**	**Brand**	**Serial No.**	**Last time**	**Next time**
Receiver	SCR3102	SCHAFFNER	012	05/13/05	05/12/06
LISN (EUT)	3825/2	EMCO	9411-2284	07/21/04	07/20/05
LISN (Support E.)	3825/2	EMCO	9210-2007	09/03/04	09/02/05
Line switch box	CB-01	TRC	98-04	05/29/05	05/28/06
FTB-1-6 Attenuator	15542	mini-circuits	9620 03	05/29/05	05/28/06
20dB Attenuator	CAT-20	mini-circuits	9620 13	05/29/05	05/28/06
Coaxial Cable	BNC3200B-0058	Jyebao	CL-05	05/29/05	05/28/06
Coaxial Cable	BNC31VB-0316	Jyebao	IF-01ca0069-036	05/29/05	05/28/06
50ohm terminator	370BNM	NARDA	PWR5W	07/21/04	07/20/05
50ohm terminator	370BNM	NARDA	PWR5W	07/21/04	07/20/05
50ohm terminator	370BNM	NARDA	PWR5W	09/03/04	09/02/05
50ohm terminator	370BNM	NARDA	PWR5W	09/03/04	09/02/05

The level of confidence of 95% , the uncertainty of measurement of conducted emission is +3.1/-4.84 dB .

Test Result : Pass (Appendix A)

Conducted Test Placement: (Photographs)

Chapter 3 Radiated emission test

Test condition and setup :

Pretest: Prior to the final test (OATS test), the EUT is placed in a shielded enclosure, and scan from 30MHz to 1GHz. This is done to ensure the radiation is exactly emitted from the EUT.

Final test : Final radiation measurements is made on a **10 – meter,** open-field test site. The EUT is placed on a nonconductive table, which is 0.8m height, the top surface is 1.0 x 1.5 meter. The placement is according to EN 55022.

The M. E. whole range Antenna is used to measure frequency from 30 MHz to 1GHz. The final test is used the Receiver.

Measure more than six top marked frequencies generated form pretest by computer step by step at each frequency. The EUT is rotated 360 degrees, and antenna is raised and lowered from 1 to 4 meters to find the maximum emission levels. The antenna is used with both horizontal and vertical polarization.

Appropriated preamplifier that is made by TRC is used for improving sensitivity and precaution is taken to avoid overloading. The spectrum analyzer's 6dB bandwidth is set to 120 K Hz, and the EUT is measured at quasi-peak mode.

If the emission is close to the frequency band of ambient, the tester will recheck the data and the corrected data will be written in the test data sheet. If the emission is just within the ambient, the data from shielded room will be taken as the final data.

List of test Instrument :

				Calibration Date	
Instrument Name	**Model No.**	**Brand**	**Serial No.**	**Last time**	**Next time**
Receiver	SCR3102	SCHAFFNER	012	05/13/05	05/12/06
Control Box	TWR95-4	TRC	C9001-2	N/A	N/A
Antenna	CBL6141A	SCHAFFNER	4206	05/27/05	05/26/06
Open test side				05/29/05	05/28/06
Pre-amplifier	TRC-CB-2	TRC	CB-002	05/29/05	05/28/06
Coaxial Cable (20meter)	RG-214/U	Jyebao	CL-002	05/29/05	05/28/06
Coaxial Cable (50cm)	BNC31VB-0316	Jyebao	CL-002	05/29/05	05/28/06
Coaxial Cable (20cm)	BNC31VB-0318	Jyebao	CL-007	05/29/05	05/28/06
Coaxial Cable (55cm)	BNC31VB-0316	Jyebao	CL-006	05/29/05	05/28/06
Coaxial Cable (55cm)	BNC31VB-0316	Jyebao	CL-005	05/29/05	05/28/06

The level of confidence of 95%, the uncertainty of measurement of radiated emission is +2.85/-2.77 dB.

Test Result : Pass (Appendix B)

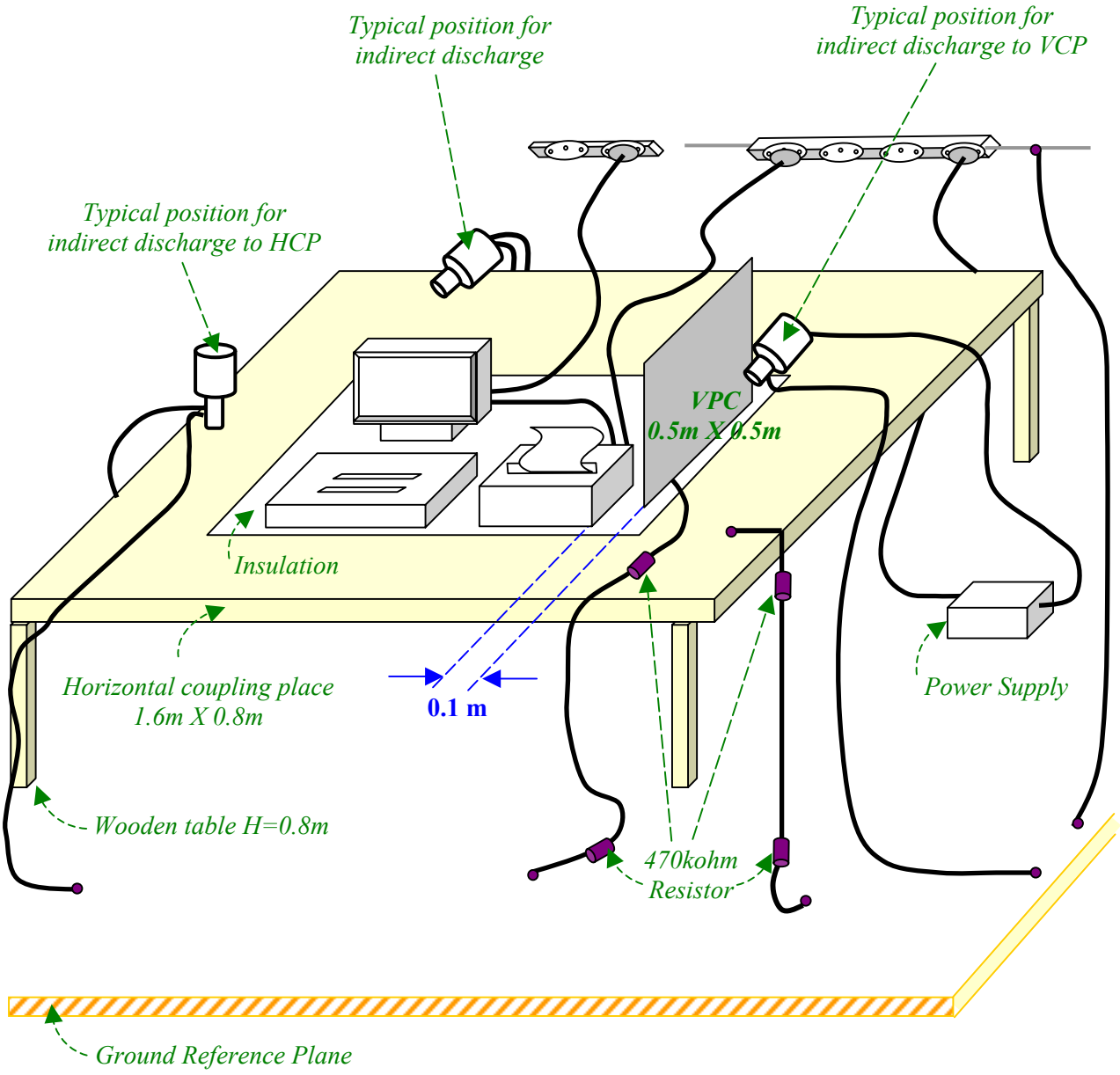
Radiated Test Placement: (Photographs)

Chapter 4 Electrostatic Discharges Immunity Test

Test Setup:

Test setup: Shielded room, According to EN 61000-4-2

Test setup for table-top equipment at laboratory tests:



Test information:

Testing site: Temperature : 26° C Humidity : 69 % RH

Test setup: Shielded Room

Test Voltage: (X) 4KV contact discharge

(X) 8KV air discharge

Indirect Discharges:(X) HCP

(X) VCP

Polarity: (X) positive (X) negative

Test mode: Ref. Test method of Chapter 1

Test points: **See Page 14**

Test instruments:

Name	Model Number	Serial Number	Selected
NoiseKen Electrostatic Discharge Simulator	ESS-100L(A)	2100C03605	X
NoiseKen Electrostatic Discharge Gun	TC-815P	2100C03566	X

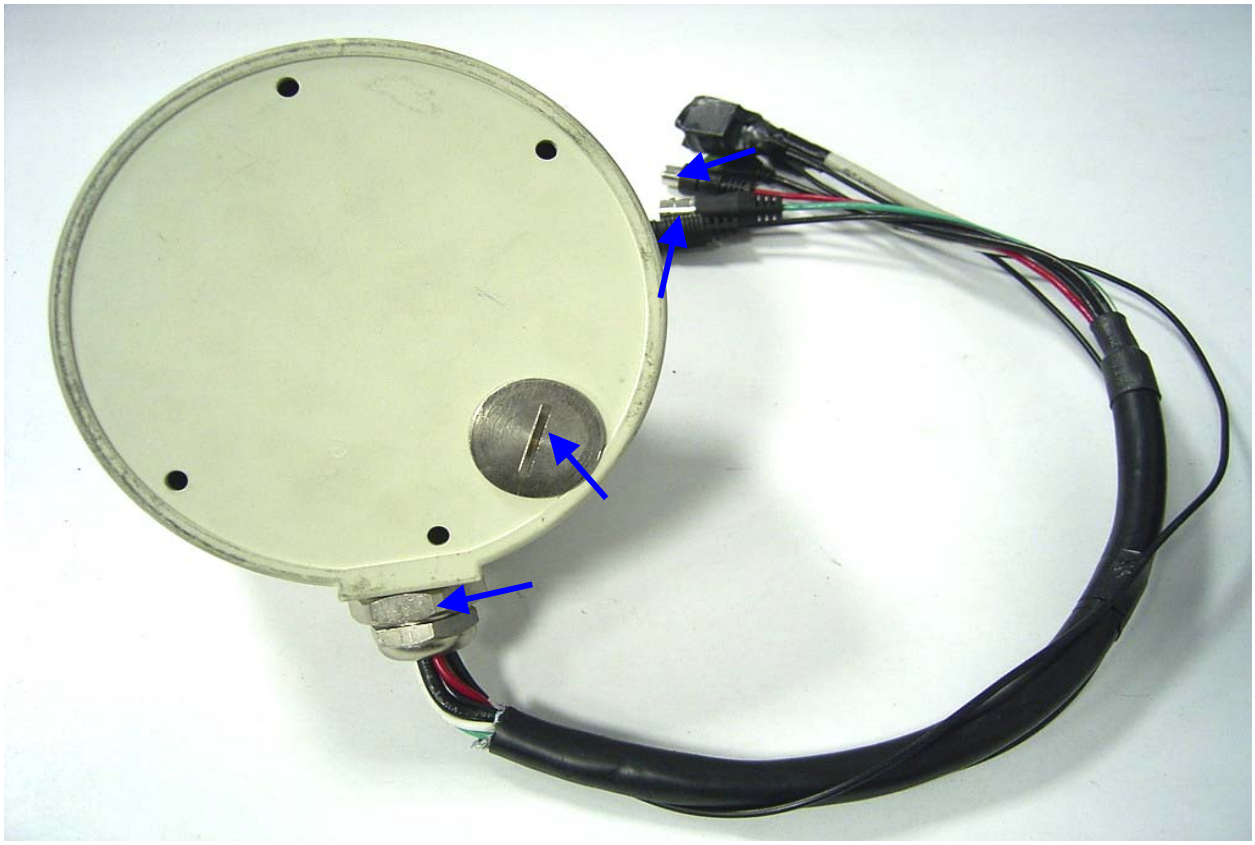
Comment:

Performance Criteria ( ) A (X) B ( ) C

Test Result : Pass

EN 61000-4-2 PHOTO OF TEST SET-UP


Contact

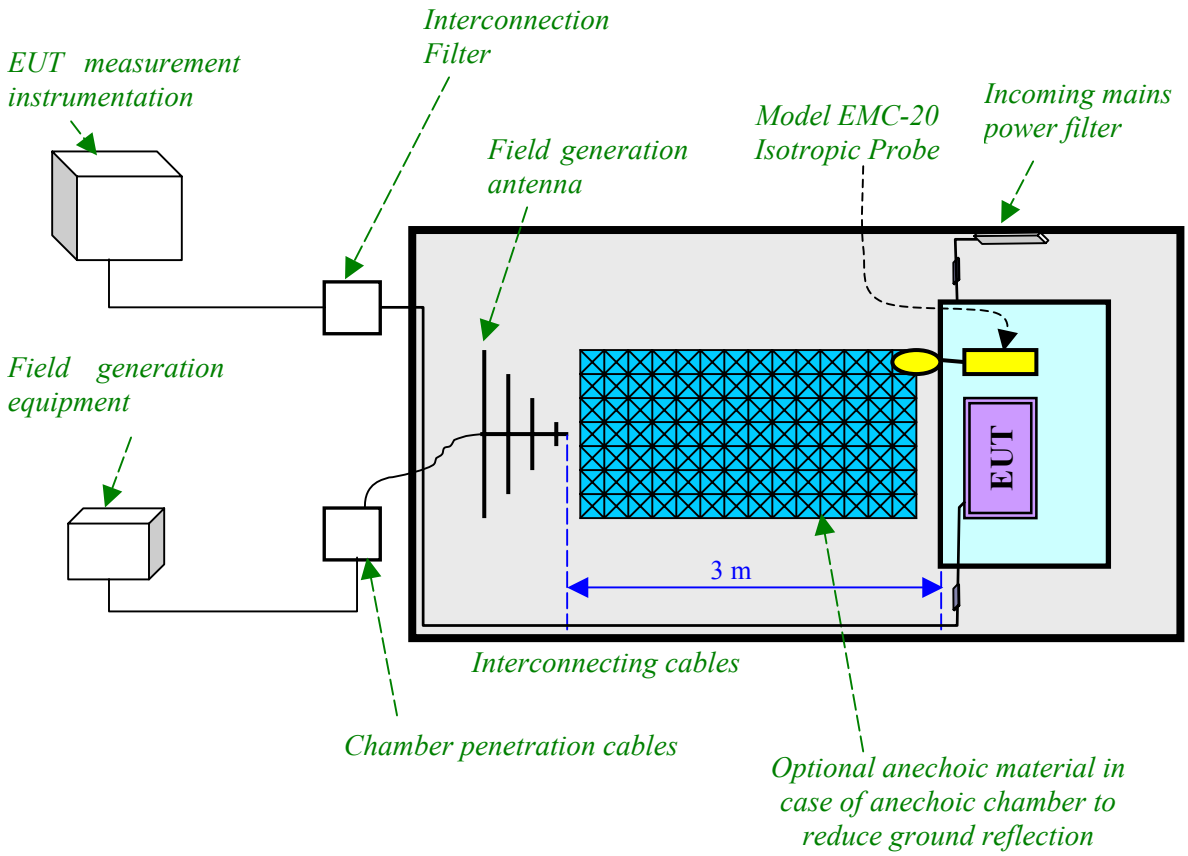


Chapter 5 Radio Frequency Immunity Test (RS)

Test Setup:

Test setup: Fully anechoic chamber

Radiated Immunity Test Setup



Test Procedure:

The EUT and load, which are placed on a table that is 0.8 meter above ground, are placed with one coincident with the calibration plane such that the distance from antenna to the EUT was 3 meters.

Both horizontal and vertical polarization of the antenna and four sides of the EUT are set on measurement.

In order to judge the EUT performance, a CCD camera is used to monitor EUT screen.

All the scanning conditions are as follows:

	Condition of Test	**Remarks**
1.	Field Strength	3 V/m Level 2
2.	Radiated Signal	AM 80% Modulated with 1KHz
3.	Scanning Frequency	80 ~ 1000 MHz
4.	Dwell Time	3 Seconds
5.	Frequency step size Δf:	1%
6.	The rate of Swept of Frequency	1.5 x 10^{-3} decades/s

Test instruments:

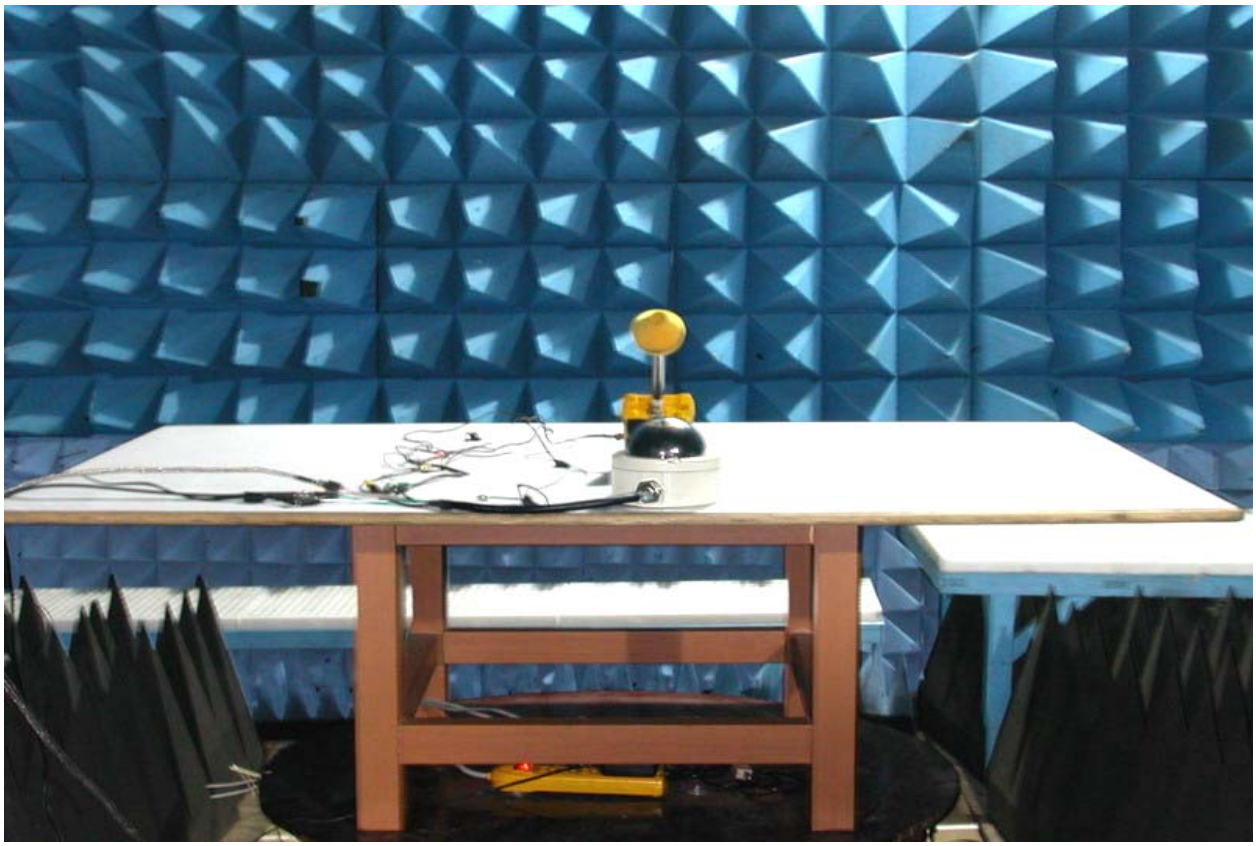
Name	Model Number	Serial Number	Selected
Shielding Room	AC5-001	N / A	X
DC Power Supply	GPR-3520HD	A150114	X
Signal Generator	HP 8648D	3613A00117	X
Amplifier	AC5-002	N / A	X
Power Meter	Mini-Circuits LZY-1	N / A	X
Spectrum Analyzer	8594EM	3710A00198	X
Preamplifier	AC3-002	N / A	X

Comment:

Performance Criteria (X) A ( ) B ( ) C

Test Result : Pass

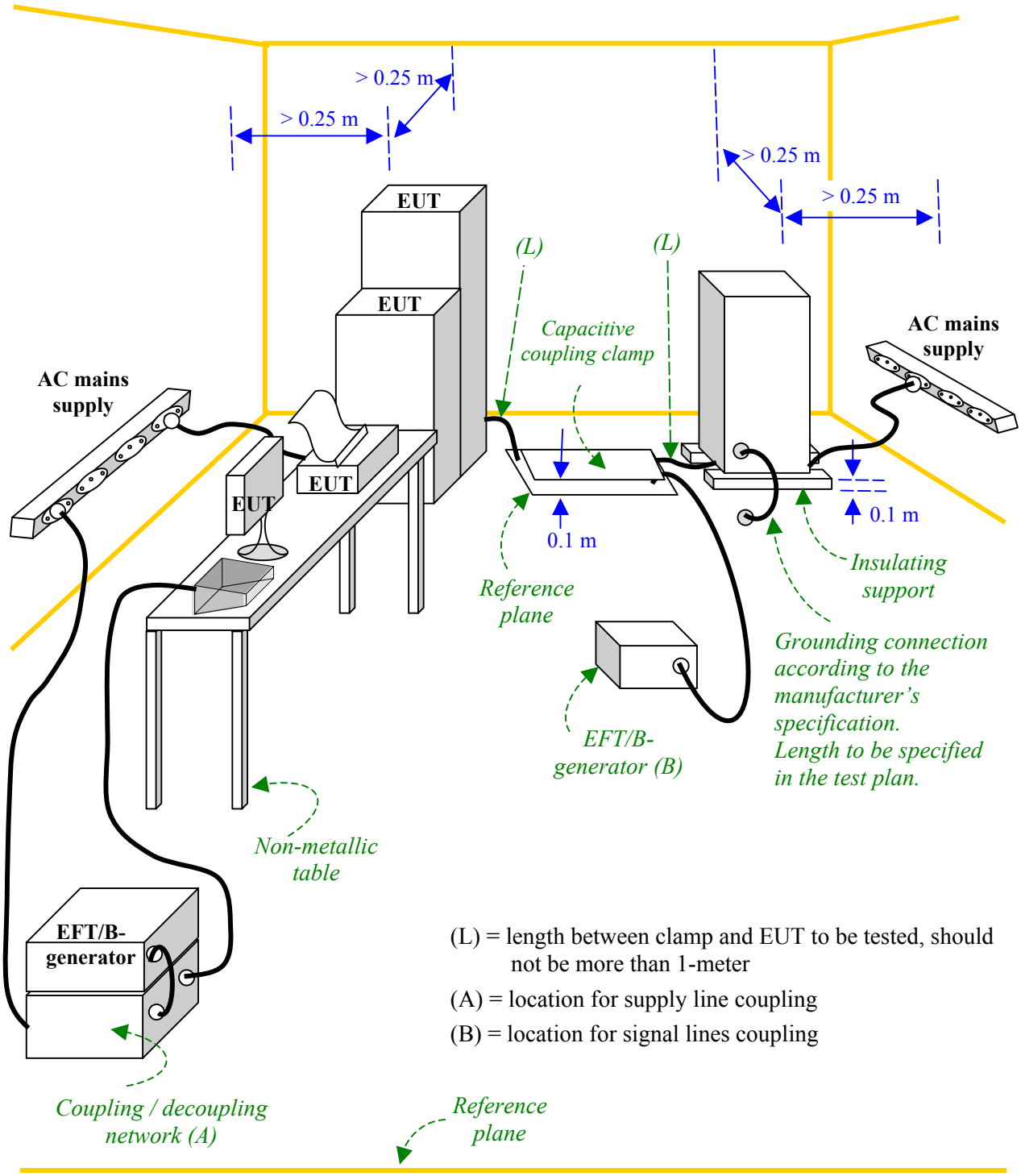
EN 61000-4-3 PHOTO OF TEST SET-UP



Chapter 6 Electric Fast Transient/Burst Requirements Test

Test Setup:

General test set-up for laboratory type tests:



(L) = length between clamp and EUT to be tested, should not be more than 1-meter

(A) = location for supply line coupling

(B) = location for signal lines coupling

Test information:

Testing site: Temperature : 26° C Humidity : 69 % RH

Test Voltage: DC Power line ( ) 0.5 KV, 5 KH

AC Power line (X) 1 KV, 5 KHz

Signal & Control line (X) 0.5 KV, 5 KHz

( ) 1 KV, 5 KHz

Polarity: (X) Positive (X) Negative

Test Duration: ( ) 1 minute (X) 3 minutes

Connected lines: ( ) Power line shielded

(X) Power line non-shielded

(X) Signal & Control line non-shielded

( ) Signal & Control line shielded

Test mode: Ref. Test method of Chapter 1.

Test instruments:

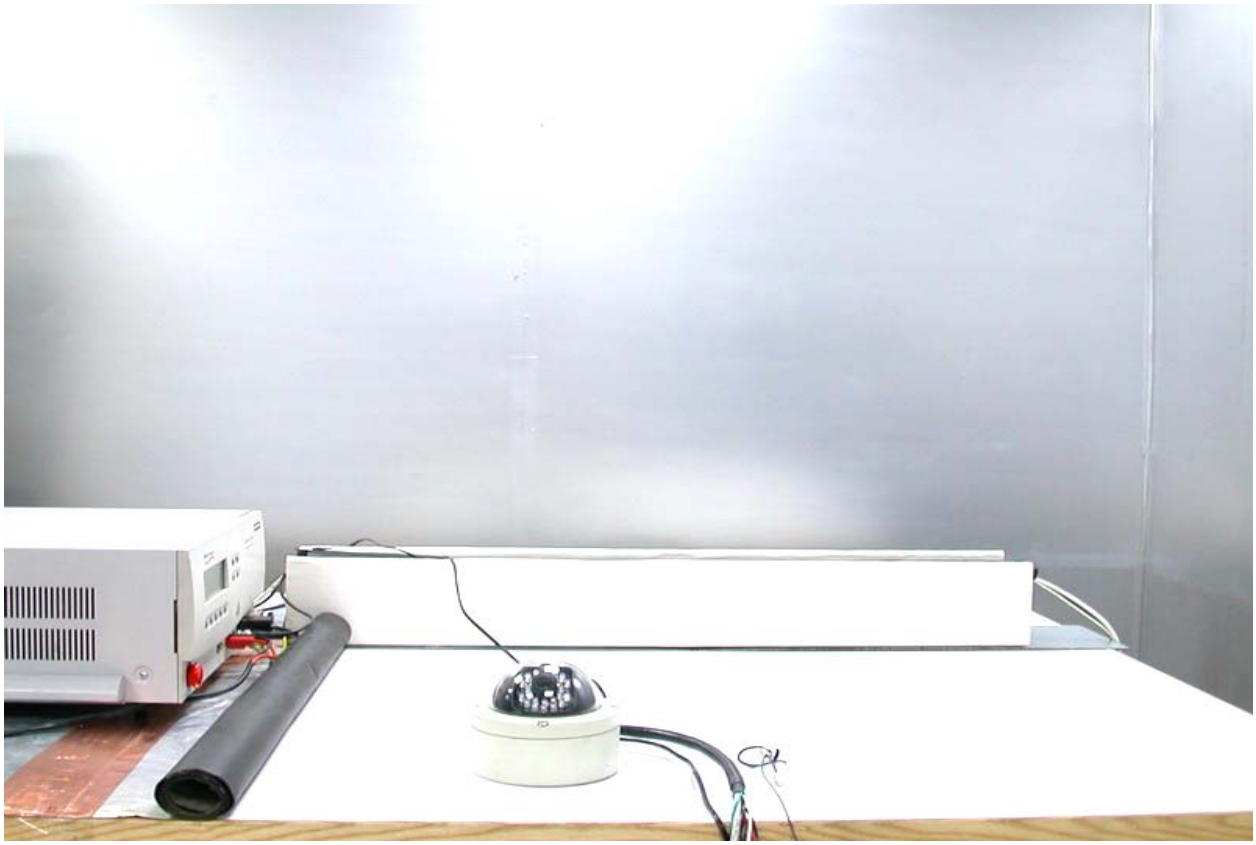
Name	Model Number	Serial Number	Selected
BEST EMC Test Instrument	BEST EMC V2.3 (-8, -9)	199918-006SC	X
Induction Coil	INA 701 BEST	199922-001SC	X

Comment:

Performance Criteria ( ) A (X) B ( ) C

Test Result : Pass

EN 61000-4-4 PHOTO OF TEST SET-UP



Chapter 7 Surge Immunity Test

Test information:

Testing site: Temperature : 26° C Humidity : 69 % RH

Test setup: According to EN 61000-4-5

Test Voltage: DC Power line ( ) 0.5 KV
AC Power line (X) 2 KV
Control line ( ) 0.5 KV
Signal ( ) 2 KV

Time : (X) 1.2/50μs (8/20μs)

Polarity: (X) Positive (X) Negative

Connected lines: ( ) Power line shielded (X) Power line non-shielded
( ) Signal & Control line non-shielded ( ) Signal & Control line shielded

Test mode: Ref. Test method of Chapter 1.

Test instrument:

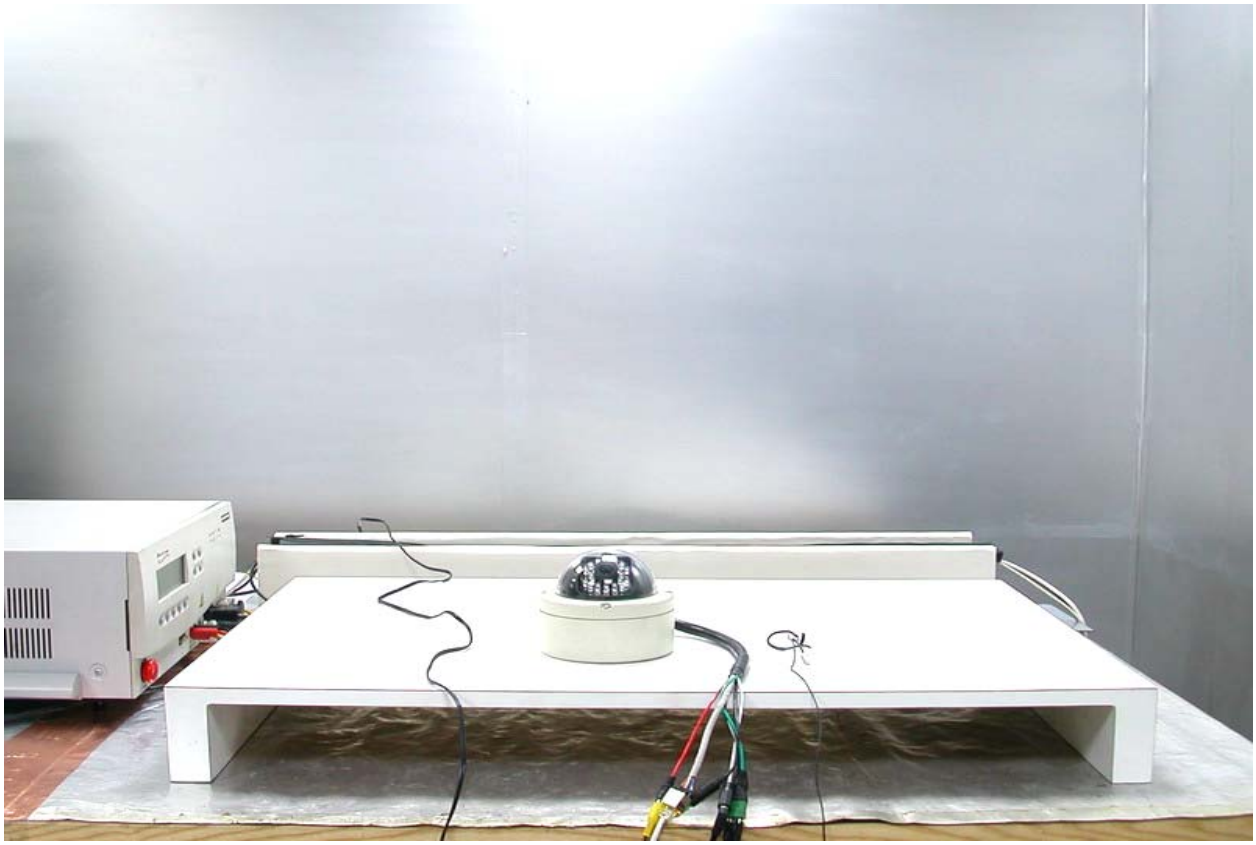
Name	Model Number	Serial Number	Selected
BEST EMC Test Instrument	BEST EMC V2.3 (-8, -9)	199918-006SC	X
Induction Coil	INA 701 BEST	199922-001SC	X
KeyTek Pulsed-EMI Test System	E103, E501B, E502B, E503, E505A, E4552A	0008260 ~0008264, 0008254	

Comment:

Performance Criteria: ( ) A (X) B ( ) C

Test Result : Pass

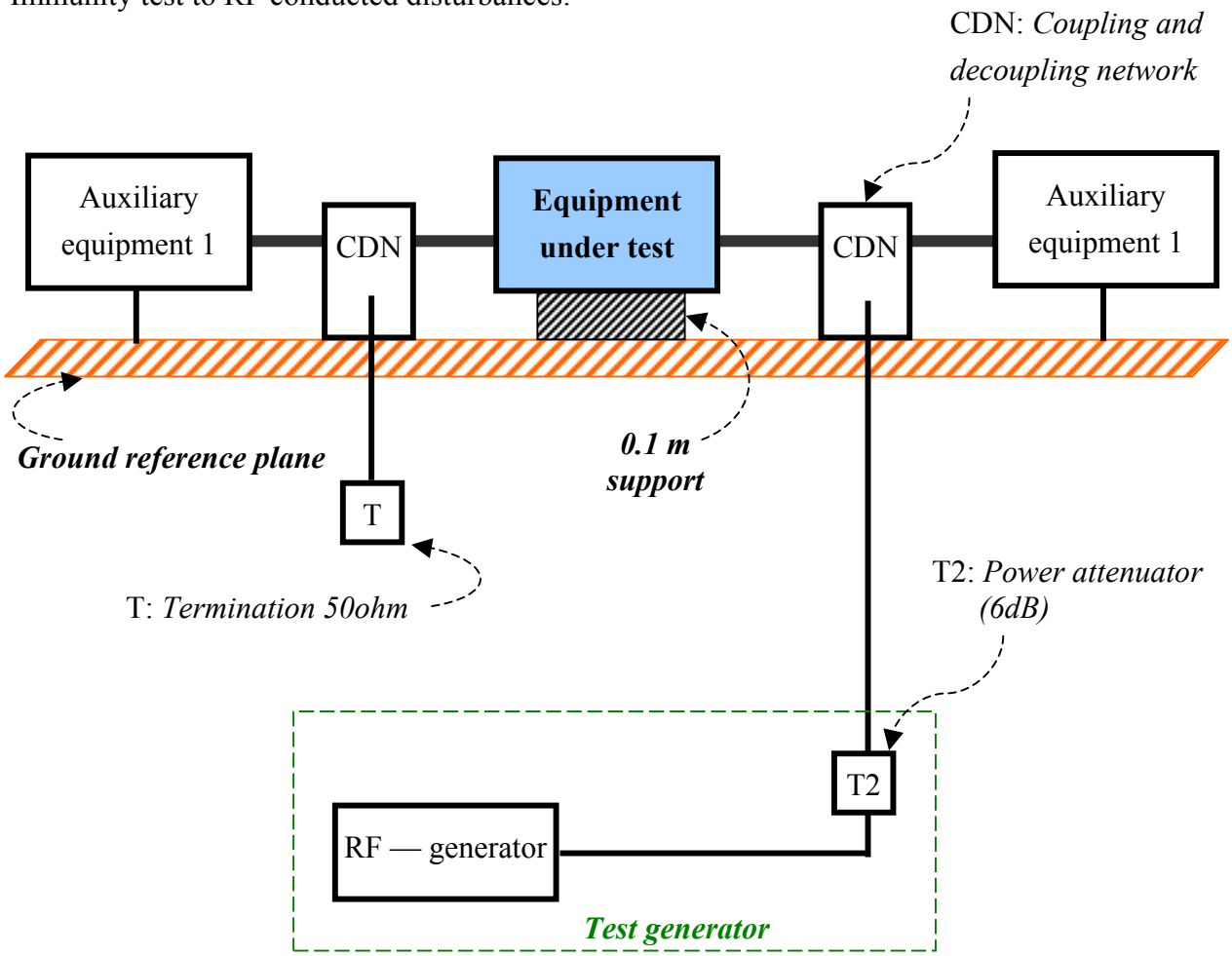
EN 61000-4-5 PHOTO OF TEST SET-UP



Chapter 8 Continuous Wave Voltage Immunity Test

Test Setup: According to *EN 61000-4-6*

Immunity test to RF conducted disturbances:



Test Procedure:

The EUT are placed on a table that is 0.8 meter height, and a ground reference plane on the table, EUT are placed upon table and use a 10 cm insulation between the EUT and ground reference plane.

For signal ports and telecommunication ports:

The disturbance signal is through a coupling and decoupling networks (CDN) or EM-clamp device couples to the signal and telecommunication lines of the EUT.

For input DC and AC power ports:

The EUT is connected to the power mains through a coupling and decoupling networks for power supply lines.

And directly couples the disturbances signal into EUT.

Used CDN-M216 for two wires or CDN-M325 for three wires.

All the scanning conditions are as follows:

	Condition of Test	**Remarks**
1.	Field Strength	130dBuV(3V) Level 2
2.	Radiated Signal	AM 80% Modulated with 1KHz
3.	Scanning Frequency	0.15MHz ~ 80MHz
4.	Dwell Time	3 Seconds
5.	Frequency step size Δf:	1%
6.	The rate of Swept of Frequency	1.5 x 10^{-3} decades/s

Testing site: Temperature : 26° C Humidity : 69 % RH

Test instruments:

Name	Model Number	Serial Number	Selected
SCHAFFNER RF-SYNTHE SIZERIAMP2IFIER	NSG 2070-1	1020	X
SCHAFFNER CDN	M325	13773	X
SCHAFFNER CDN	M216	15604	
SCHAFFNER CDN	T004	15230	X
SCHAFFNER CDN	S501	15167	
SCHAFFNER FM-Koppelzange	KEMZ 801	14301	

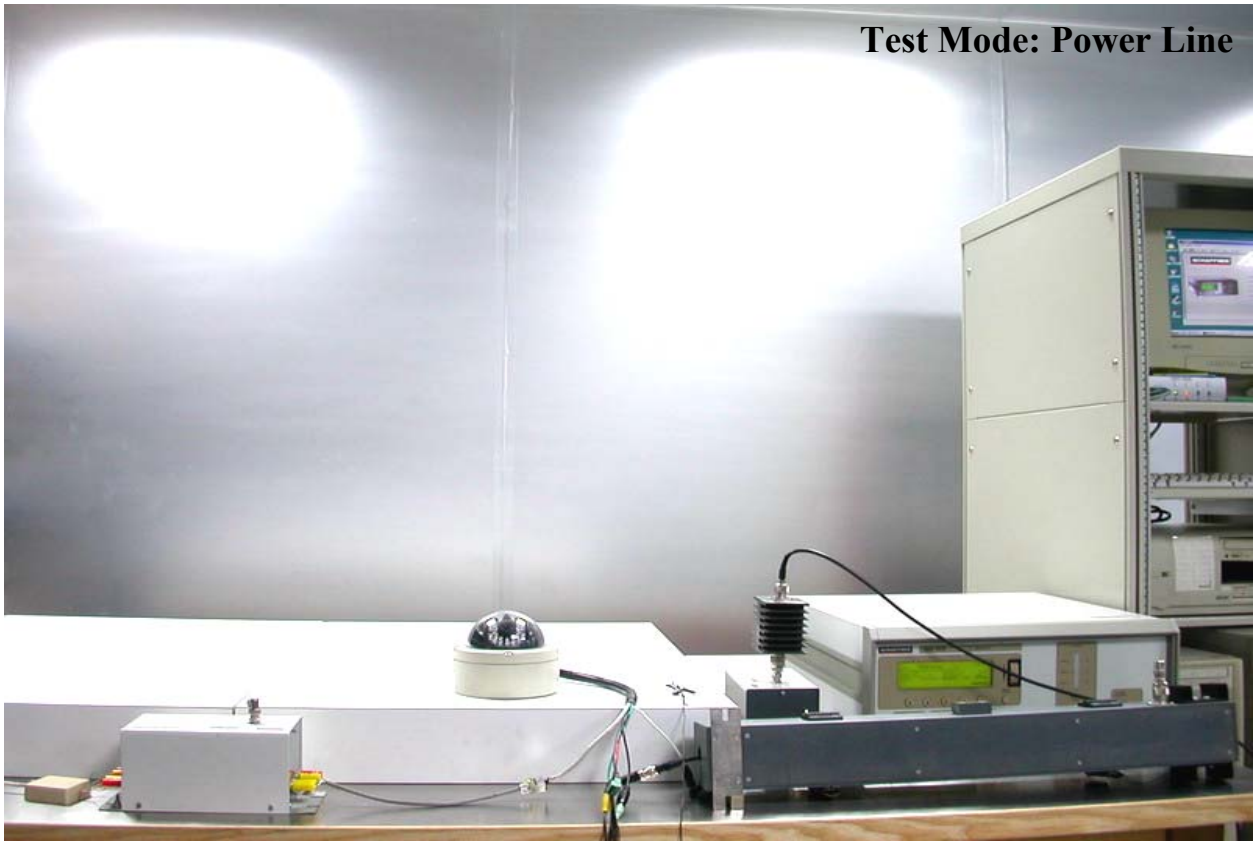
Comment:

Performance Criteria: (X) A ( ) B ( ) C

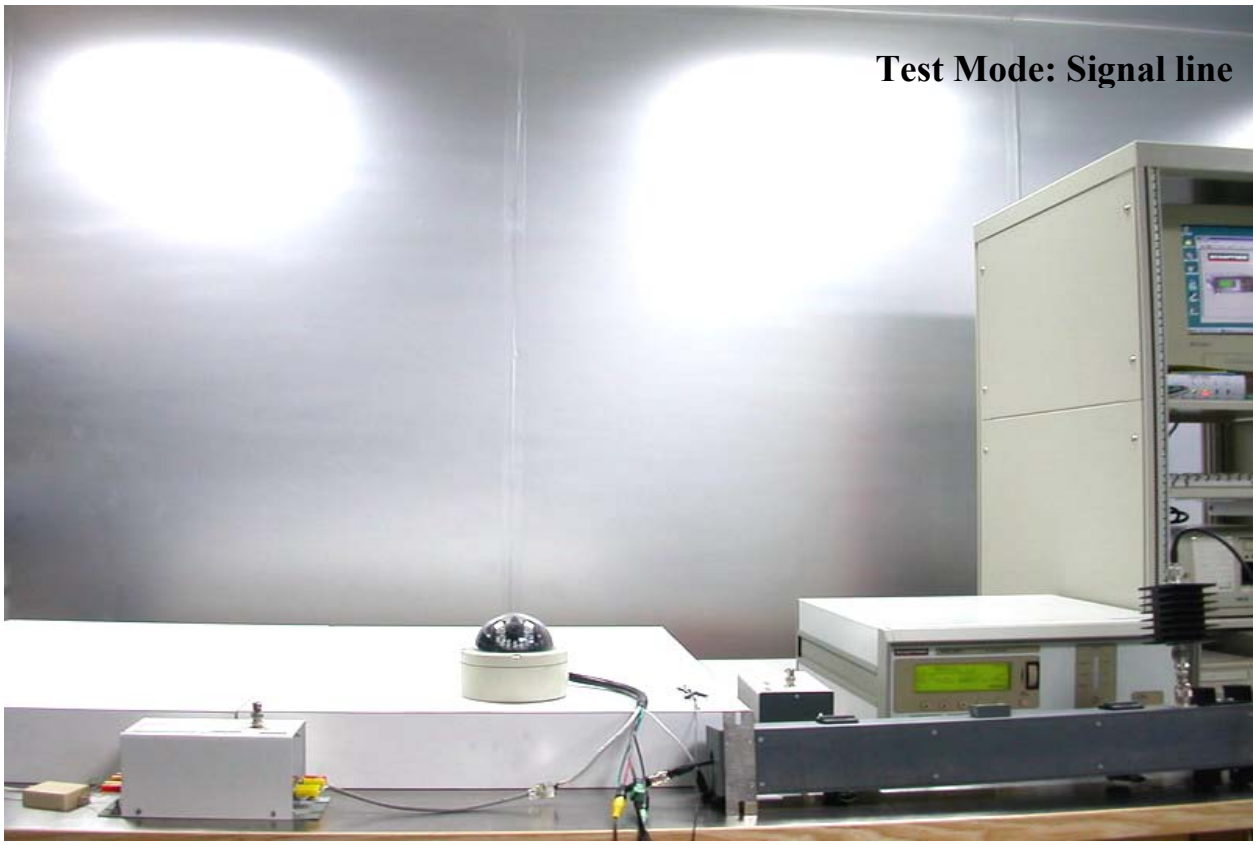
Test Result : Pass

EN 61000-4-6 PHOTO OF TEST SET-UP

Test Mode: Power Line



Test Mode: Signal line



Chapter 9 Power Frequency Magnetic Field Immunity Test

Test information:

Testing site: Temperature : 26° C Humidity : 69 % RH
Test setup: According to EN 61000-4-8
Test method : (X) Continuous ( ) Short duration
Magnetic Field Strength:(X) 1A/m
Frequency: 50Hz
polarization: (X) X polarization (X) Y polarization (X) Z polarization
Test mode: Ref. Test method of Chapter 1
Test Duration: (X) 30 seconds ( ) 1~3 seconds
Connected lines: ( ) Power line shielded (X) Power line non-shielded
(X) Signal & Control line non-shielded ( ) Signal & Control line shielded

** Power Frequency Magnetic Field in the horizontal and vertical polarity.**

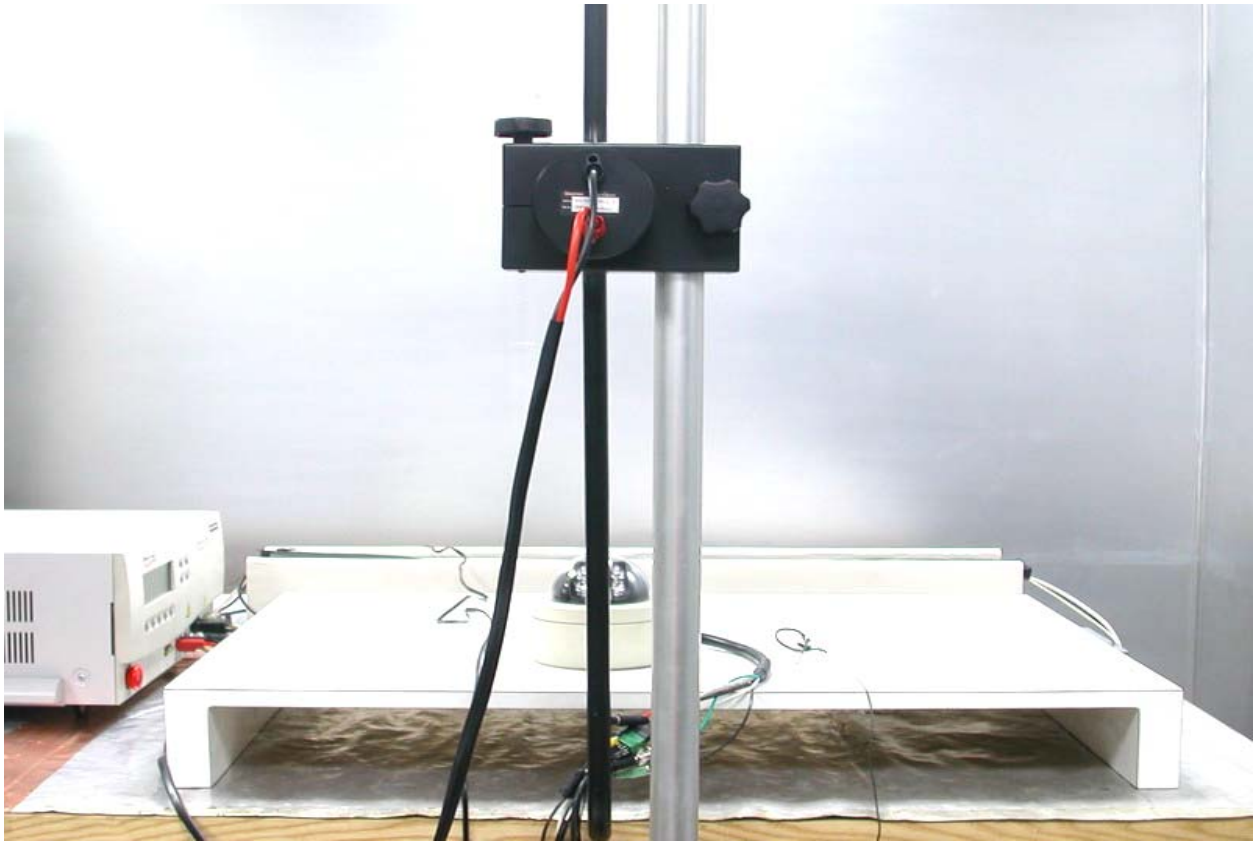
Test instruments:

Name	Model Number	Serial Number	Selected
BEST EMC Test Instrument	BEST EMC V2.3 (-8, -9)	199918-006SC	X
Induction Coil	INA 701 BEST	199922-001SC	X

Comment:
Performance Criteria: (X) A ( ) B ( ) C

Test Result : Pass

EN 61000-4-8 PHOTO OF TEST SET-UP



Chapter 10 Voltage DIP / Interruption Test

Test information:

Testing site: Temperature : 26° C Humidity : 69 % RH

Test setup: According to EN 61000-4-11

Voltage dips / Test specification / Units: (X) > 95%, 0.5period

(X) 30%, 25periods

Voltage interruptions/ Test specification / Units: (X) > 95%, 250periods

Test mode: Ref. Test method of Chapter 1

Test instruments:

Name	Model Number	Serial Number	Selected
BEST EMC Test Instrument	BEST EMC V2.3 (-8, -9)	199918-006SC	X
Induction Coil	INA 701 BEST	199922-001SC	X

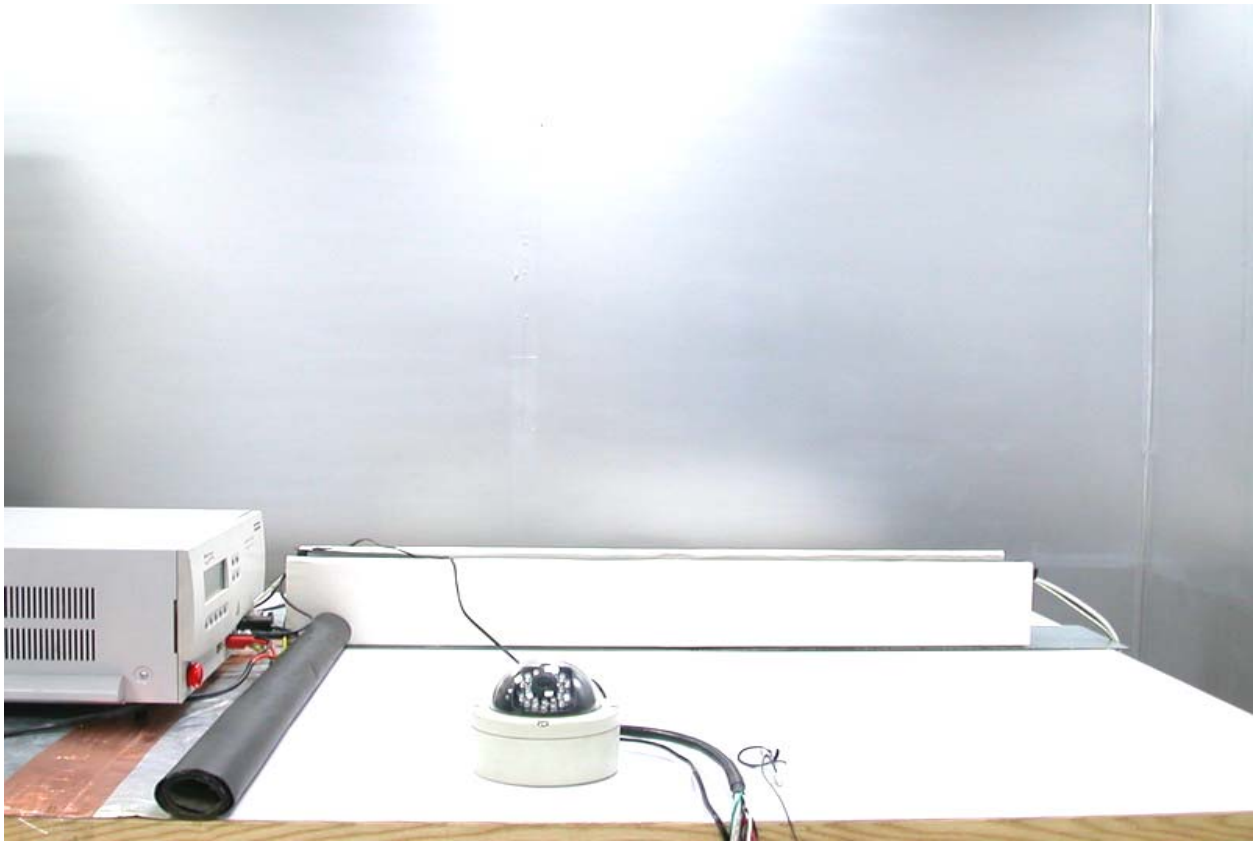
Comment:

Performance Criteria:

Dips: (1) >95% →	( ) A	(X) B	( ) C
Interruptions : (2) >95% →	( ) A	( ) B	(X) C
Dips : (3) 30% →	( ) A	( ) B	(X) C

Test Result : Pass

EN 61000-4-11 PHOTO OF TEST SET-UP



Chapter 11 Harmonics Test

Test information:

Testing site: Temperature : 25° C Humidity : 68 % RH

Test setup: According to EN 61000-3-2

Test Item: Quasi – stationary & Fluctuating Current Harmonics Test

Test mode: Ref. Test method of Chapter 1

Test instrument:

Name	Model Number	Serial Number	Selected
Harmonic/Flicker Test System	HP 6842A	3531A-00102	X

Test Equipment Settings:	Quasi-stationary Current Harmonics Test	Fluctuating Current Harmonics Test
Line Voltage	230VAC	230VAC
Line Frequency	50Hz	50Hz
Device Class	D	D
Test Limit Overrides	None	None
Total Number of Failures:	None	None
Total Number of Errors:	None	None

Test Result: PASS

Chapter 12 Voltage Fluctuation and Flicker Test

Test information:

Testing site: Temperature : 25° C Humidity : 68 % RH

Test setup: According to EN 61000-3-3

Test mode: Ref. Test method of Chapter 1

Test instrument:

Name	Model Number	Serial Number	Selected
Harmonic/Flicker Test System	HP 6842A	3531A-00102	X

Test Equipment Settings:	
Line Voltage	230VAC
Line Frequency	50Hz
Test Limit Overrides	None
Total Number of Failures:	Pst: (0), Plt: (0)
	Dc: (0), Dmax (0), Dt (0)
Total Number of Errors:	None

Test Result: PASS

Appendix A

Conducted Emission Test Result: (Test Mode: FD6111V, FD6112V)

Testing room : Temperature : 22 ° C Humidity : 65 % RH

Line 1

Frequency (KHz)	*READING AMPLITUDE*			*LIMIT*		*Margin (dB)*
	Peak (dBμV)	*Quasi-Peak (dBμV*	*Average (dBμV)*	*Quasi-Peak (dBμV)*	*Average (dBμV)*	
284.00	39.78	***.**	***.**	62.17	52.17	-12.39
474.00	41.65	***.**	***.**	56.74	46.74	-5.09
576.00	42.43	***.**	***.**	56.00	46.00	-3.57
720.00	45.29	39.90	31.22	56.00	46.00	-14.78
796.00	45.90	43.23	35.74	56.00	46.00	-10.26
873.00	50.43	43.99	33.89	56.00	46.00	-12.01
1205.00	40.30	***.**	***.**	56.00	46.00	-5.70
2500.00	37.68	***.**	***.**	56.00	46.00	-8.32
4360.00	37.71	***.**	***.**	56.00	46.00	-8.29
6440.00	35.08	***.**	***.**	60.00	50.00	-14.92

Line 2

Frequency (KHz)	*READING AMPLITUDE*			*LIMIT*		*Margin (dB)*
	Peak (dBμV)	*Quasi-Peak (dBμV)*	*Average (dBμV)*	*Quasi-Peak (dBμV)*	*Average (dBμV)*	
446.00	42.12	***.**	***.**	57.54	47.54	-5.42
599.00	44.29	***.**	***.**	56.00	46.00	-1.71
695.00	45.88	41.73	30.40	56.00	46.00	-14.27
862.00	51.05	42.95	32.75	56.00	46.00	-13.05
2520.00	38.58	***.**	***.**	56.00	46.00	-7.42
4940.00	37.34	***.**	***.**	56.00	46.00	-8.66
6700.00	39.59	***.**	***.**	60.00	50.00	-10.41
9160.00	35.29	***.**	***.**	60.00	50.00	-14.71
16250.00	39.28	***.**	***.**	60.00	50.00	-10.72
18250.00	39.28	***.**	***.**	60.00	50.00	-10.72

*The reading amplitudes are all under limit.

Conducted Emission Test Result: (Test Mode: FD6121V, FD6122V)

Testing room : Temperature : 22 ° C Humidity : 65 % RH

Line 1

Frequency (KHz)	*READING AMPLITUDE*			*LIMIT*		*Margin (dB)*
	Peak (dBμV)	*Quasi-Peak (dBμV*	*Average (dBμV)*	*Quasi-Peak (dBμV)*	*Average (dBμV)*	
363.00	40.52	***.**	***.**	59.91	49.91	-9.39
483.00	41.81	***.**	***.**	56.49	46.49	-4.68
751.00	44.26	***.**	***.**	56.00	46.00	-1.74
809.00	46.22	41.95	32.79	56.00	46.00	-13.21
888.00	47.59	43.85	33.76	56.00	46.00	-12.15
1232.00	39.50	***.**	***.**	56.00	46.00	-6.50
2480.00	37.75	***.**	***.**	56.00	46.00	-8.25
2680.00	38.50	***.**	***.**	56.00	46.00	-7.50
4420.00	38.47	***.**	***.**	56.00	46.00	-7.53
18250.00	38.12	***.**	***.**	60.00	50.00	-11.88

Line 2

Frequency (KHz)	*READING AMPLITUDE*			*LIMIT*		*Margin (dB)*
	Peak (dBμV)	*Quasi-Peak (dBμV)*	*Average (dBμV)*	*Quasi-Peak (dBμV)*	*Average (dBμV)*	
469.00	42.61	***.**	***.**	56.89	46.89	-4.28
694.00	45.88	43.03	32.52	56.00	46.00	-12.97
823.00	45.95	41.66	32.21	56.00	46.00	-13.79
888.00	47.22	44.17	34.42	56.00	46.00	-11.58
923.00	49.37	46.24	38.67	56.00	46.00	-7.33
1292.00	39.65	***.**	***.**	56.00	46.00	-6.35
2480.00	38.60	***.**	***.**	56.00	46.00	-7.40
4520.00	38.31	***.**	***.**	56.00	46.00	-7.69
7780.00	42.09	***.**	***.**	60.00	50.00	-7.91
18250.00	43.50	***.**	***.**	60.00	50.00	-6.50

*The reading amplitudes are all under limit.

Appendix B

Radiated Emission Test Result: (Test Mode: FD6111V, FD6112V)

Test Conditions:

Testing site : Temperature : 28 ° C Humidity : 80 % RH

Frequency	Reading Amplitude	Ant. Height	Table	Correction Factors	Corrected Amplitude	Limit	Margin
MHz	dBμV/m	m	degree	dB	dBμV/m	dBμV/m	dB
(Horizontal)							
216.0355	34.21	3.27	0	-7.32	26.89	30.00	-3.11
337.5530	33.37	1.00	64	-2.27	31.10	37.00	-5.90
364.5560	35.10	1.00	0	-1.26	33.84	37.00	-3.16
375.0380	32.98	1.02	344	-0.80	32.18	37.00	-4.82
391.5630	31.17	1.01	84	-0.07	31.10	37.00	-5.90
***							
(Vertical)							
150.0250	32.00	2.16	22	-5.10	26.90	30.00	-3.10
162.0276	31.35	1.51	0	-4.64	26.71	30.00	-3.29
189.0350	35.03	1.58	331	-7.68	27.35	30.00	-2.65
200.0313	35.45	2.31	306	-8.30	27.15	30.00	-2.85
900.1200	23.42	1.00	340	9.70	33.12	37.00	-3.88
***							

Note:

1. Margin = Amplitude - limit, *if margin is minus means under limit.*
2. Corrected Amplitude = Reading Amplitude + Correction Factors
3. Correction factor = Antenna factor + (Cable Loss - Amplitude gain)
   (For example : 30MHz correction factor = 15.5 + (-15.26) = 0.24 dB/m)

Radiated Emission Test Result: (Test Mode: FD6121V, FD6122V)

Test Conditions:

Testing site : Temperature : 28 ° C Humidity : 80 % RH

Frequency	Reading Amplitude	Ant. Height	Table	Correction Factors	Corrected Amplitude	Limit	Margin
MHz	dBμV/m	m	degree	dB	dBμV/m	dBμV/m	dB
(Horizontal)							
216.0305	33.93	0.97	180	-7.32	26.61	30.00	-3.39
228.8703	33.46	0.99	258	-6.65	26.81	30.00	-3.49
243.0350	3729	3.989	0	-5.68	31.61	37.00	-5.39
250.0350	36.70	2.50	89	-5.40	31.30	37.00	-5.70
***							
(Vertical)							
135.0210	34.02	1.00	312	-6.10	27.92	30.00	-2.08
189.0283	33.56	0.99	359	-7.68	25.88	30.00	-4.12
243.0350	38.67	0.99	314	-5.68	32.99	37.00	-4.01
245.7578	38.85	1.06	328	-5.57	33.28	37.00	-3.72
247.9433	39.19	0.96	360	-5.48	33.71	37.00	-3.29
***							

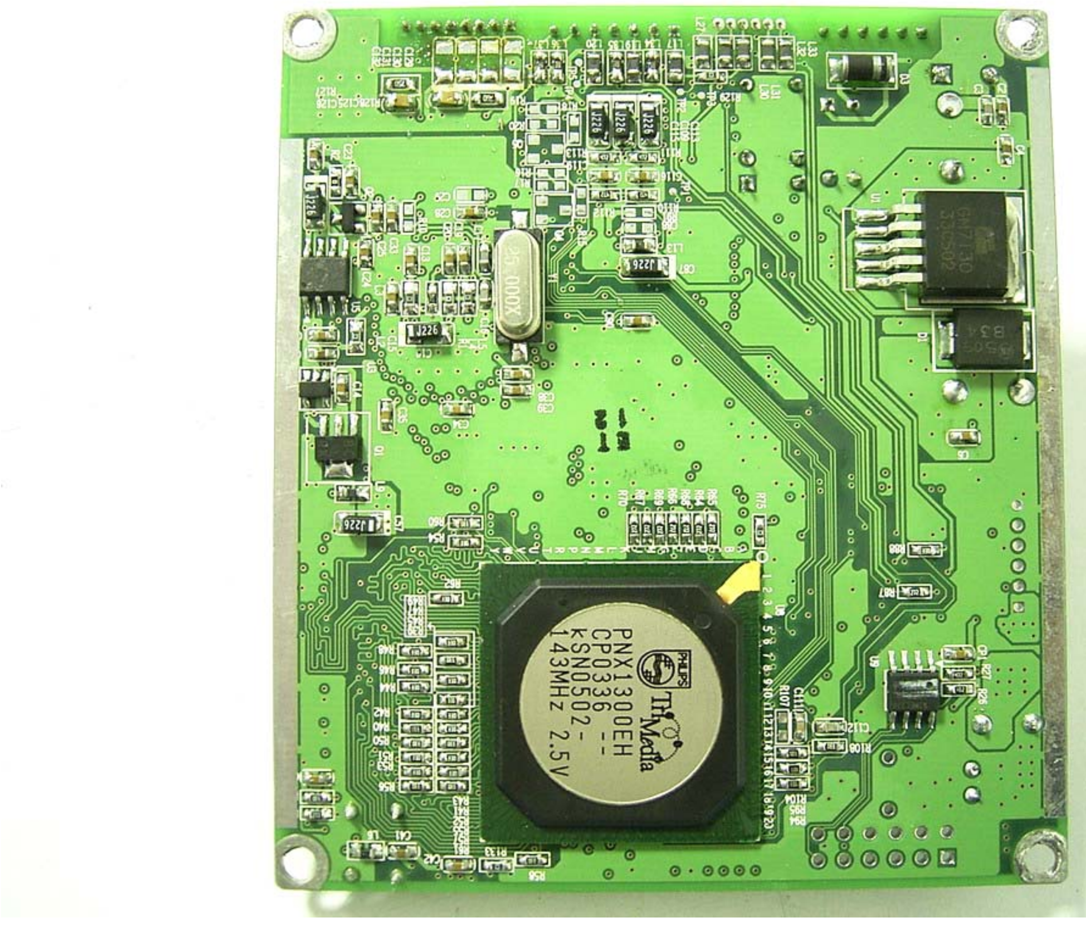
Note:

1. Margin = Amplitude - limit, *if margin is minus means under limit.*
2. Corrected Amplitude = Reading Amplitude + Correction Factors
3. Correction factor = Antenna factor + (Cable Loss - Amplitude gain)
   (For example : 30MHz correction factor = 15.5 + (-15.26) = 0.24 dB/m)

Appendix C

Photographs of EUT

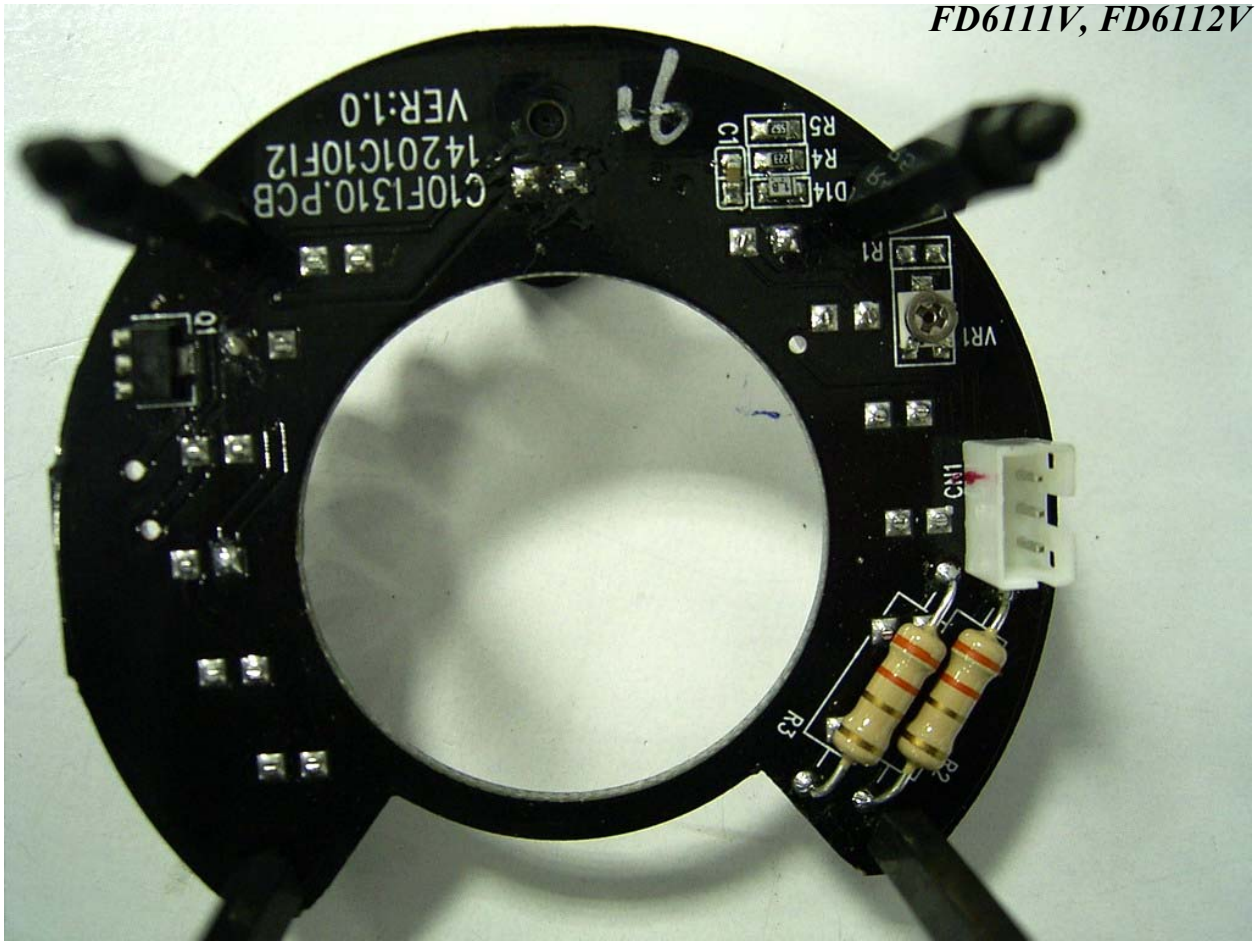
TS6121C
0439J
RTL8100BL
4513Q01
420E TAIWAN
150-10
K5
MEC
Fix Dome V0.2



PHILIPS
TriMedia
PNX1300EH
CP0336 --
KSN0502-
143MHz 2.5V

FD6111V, FD6112V

FD6111V, FD6112V



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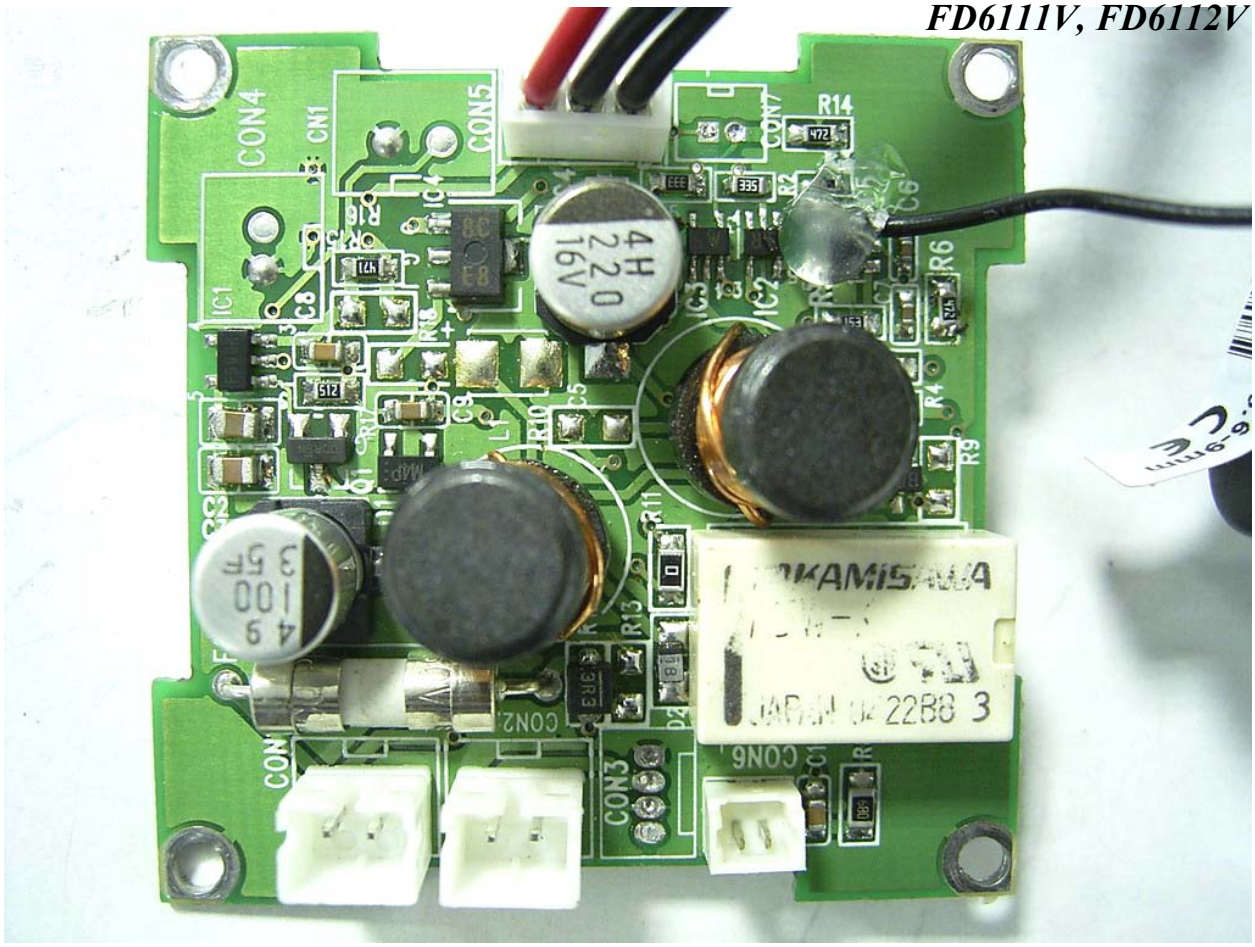

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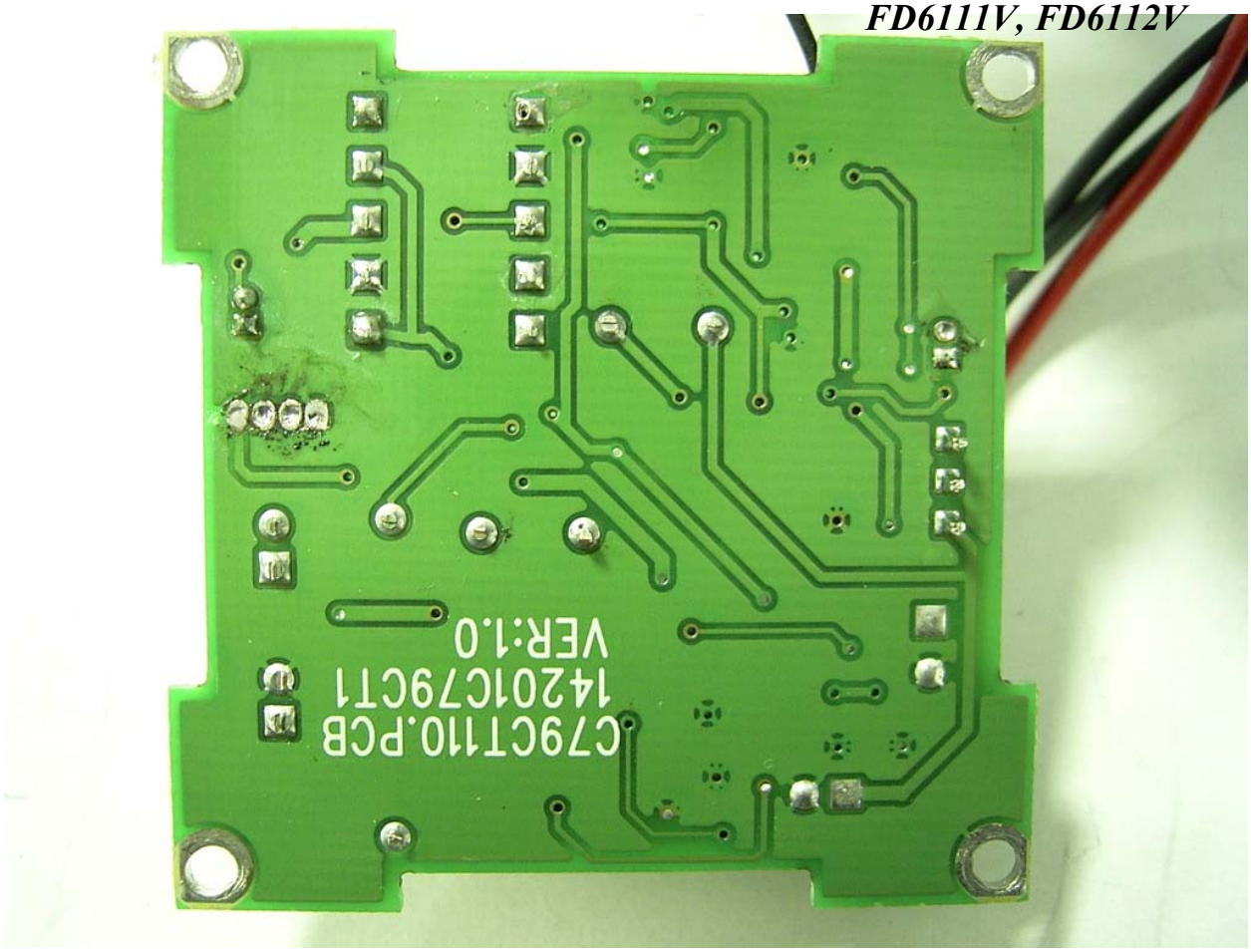

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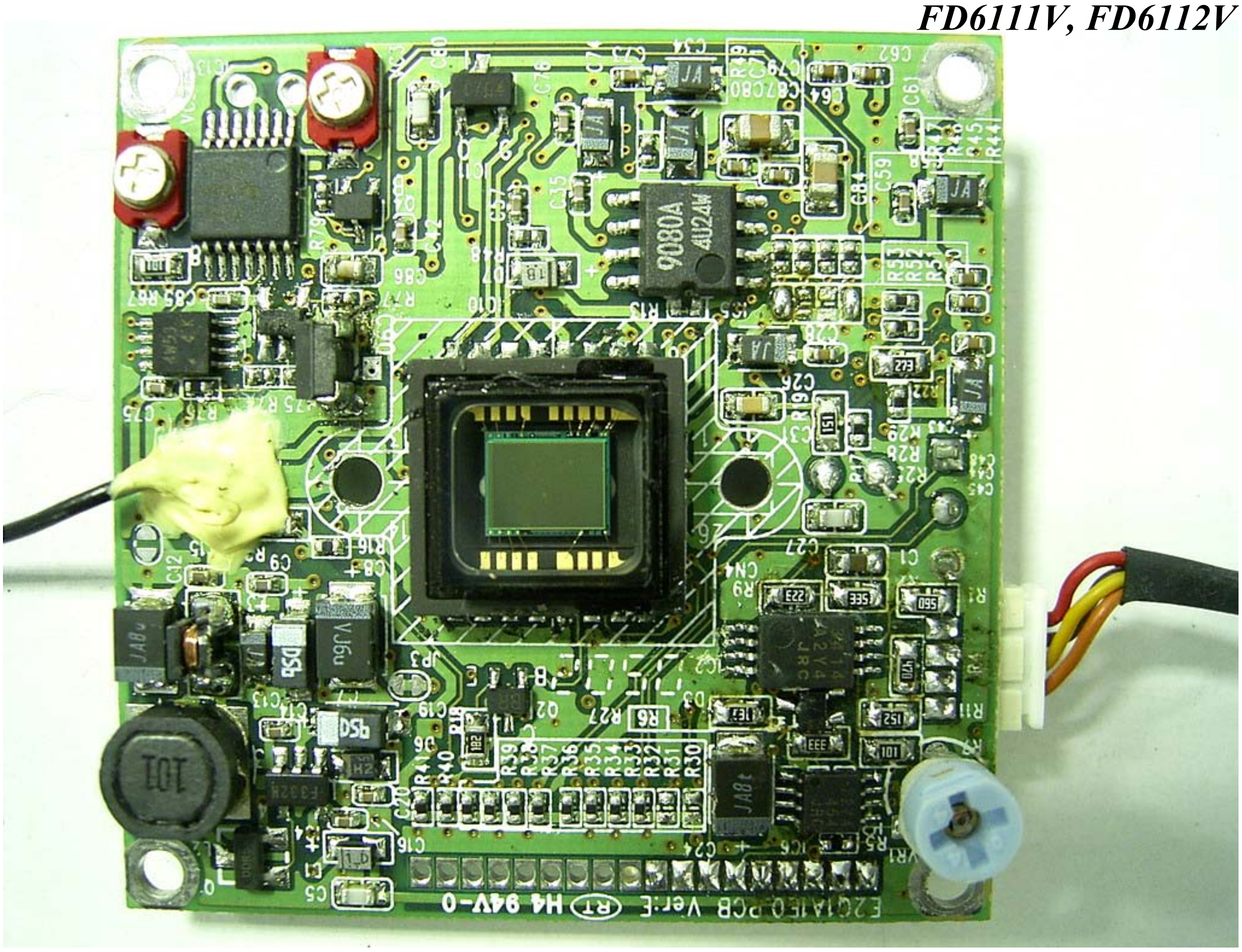

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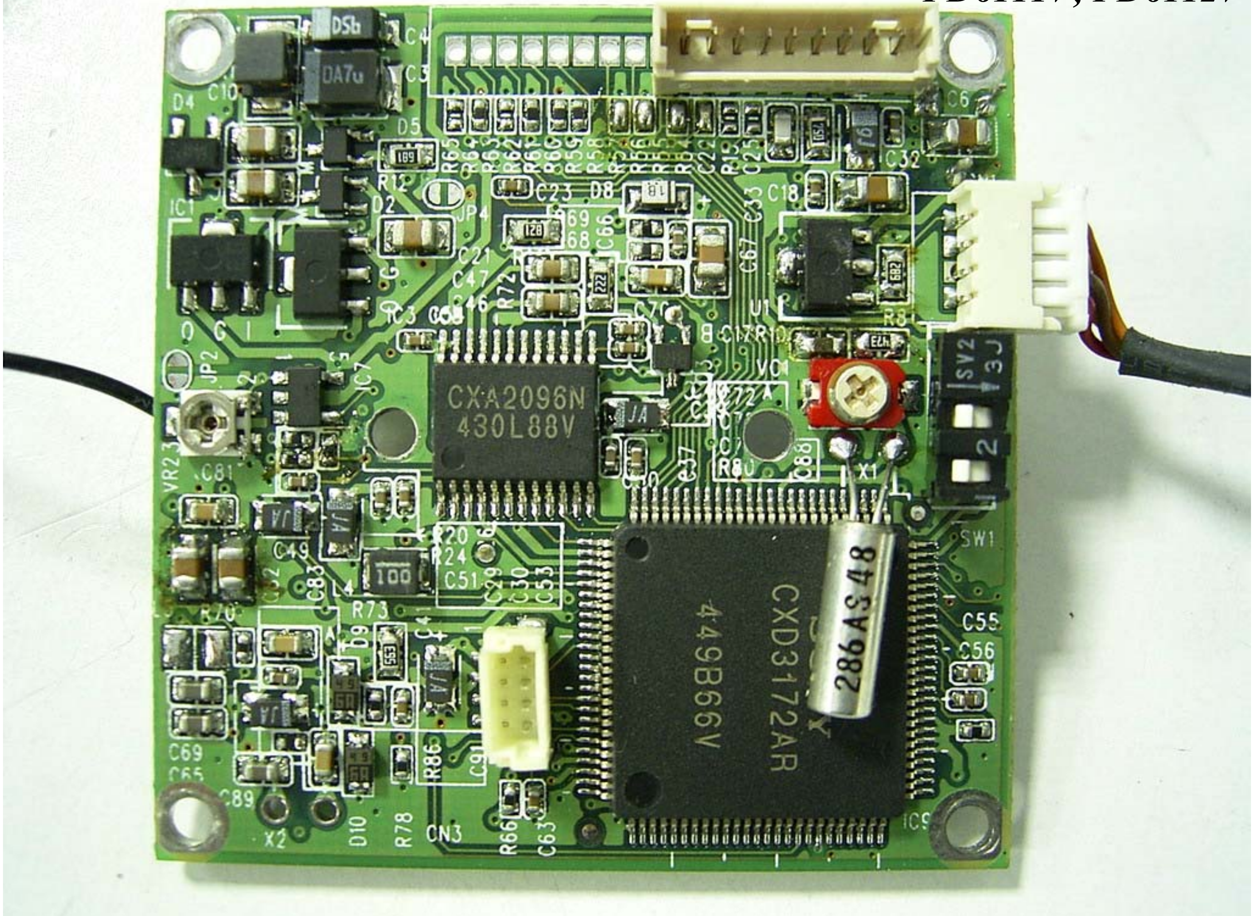
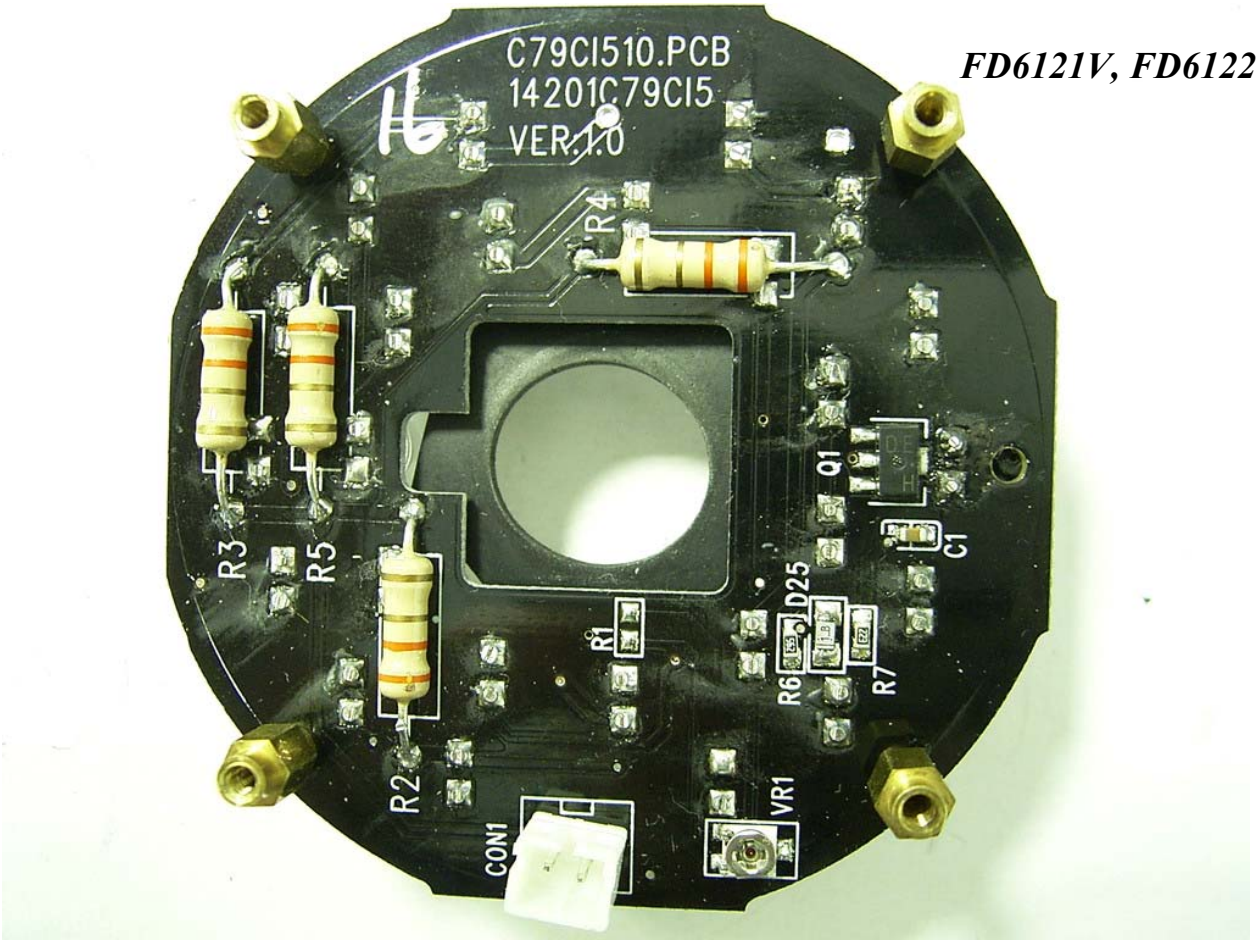


FD6111V, FD6112V

FD6111V, FD6112V

FD6121V, FD6122V

FD6121V, FD6122V



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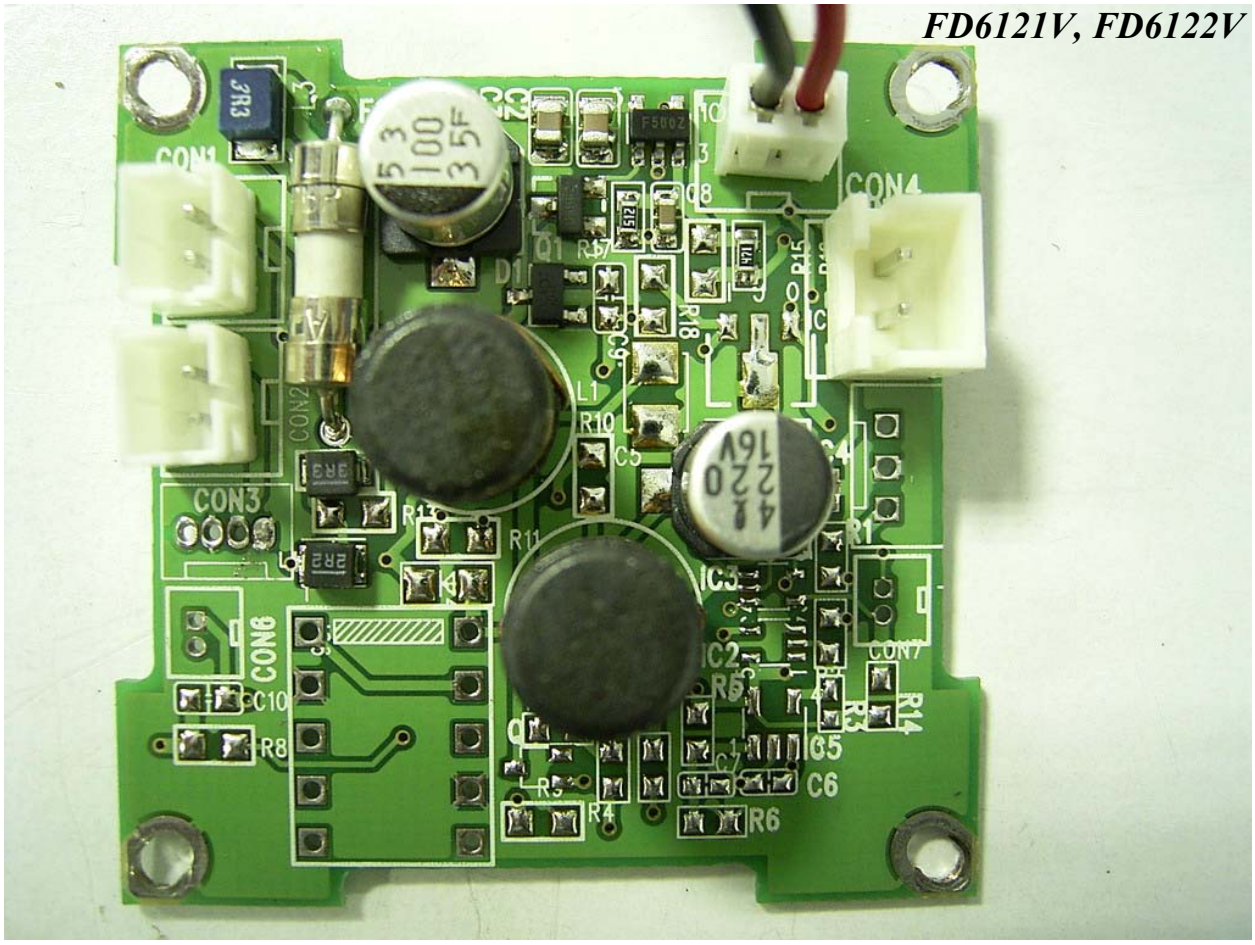

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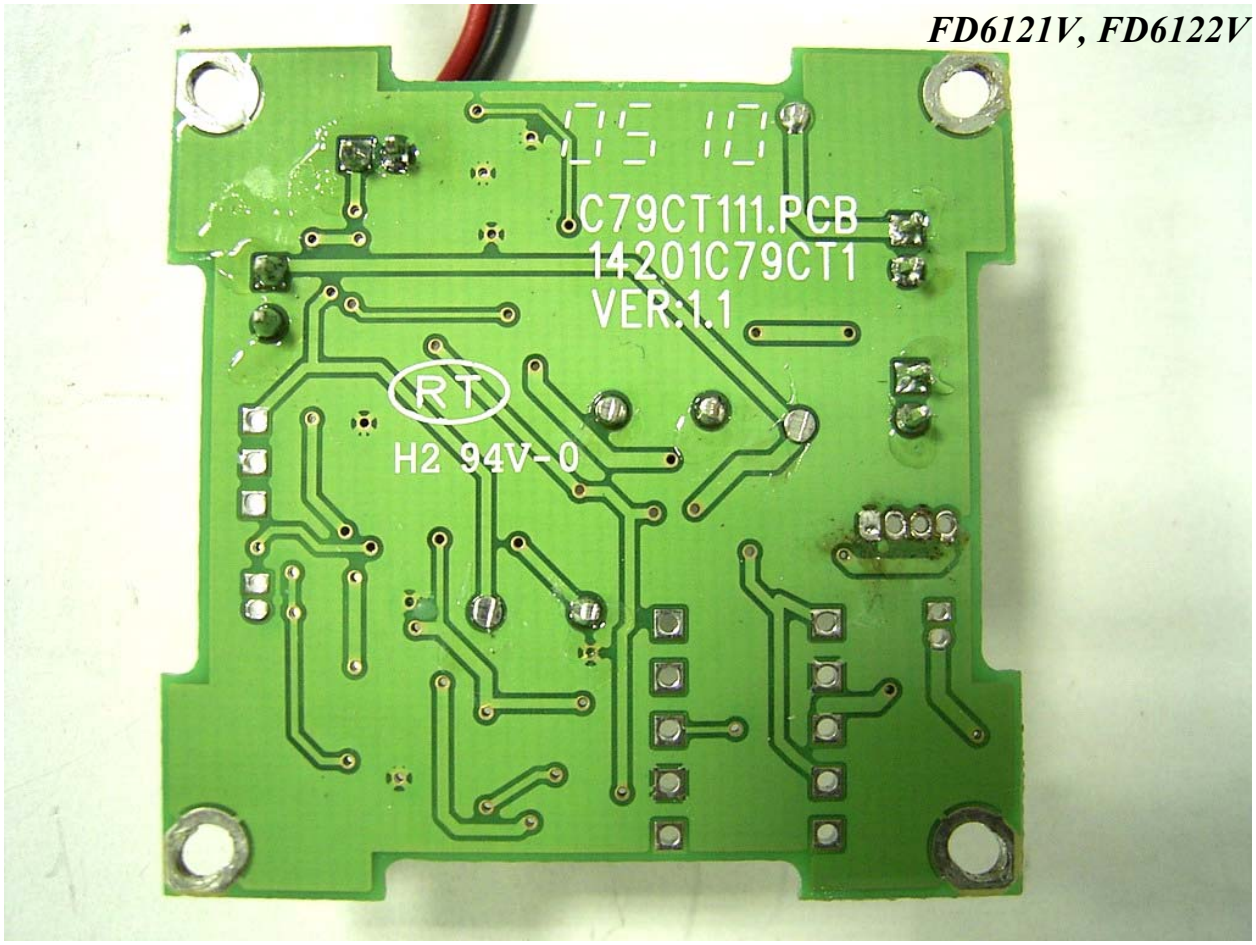

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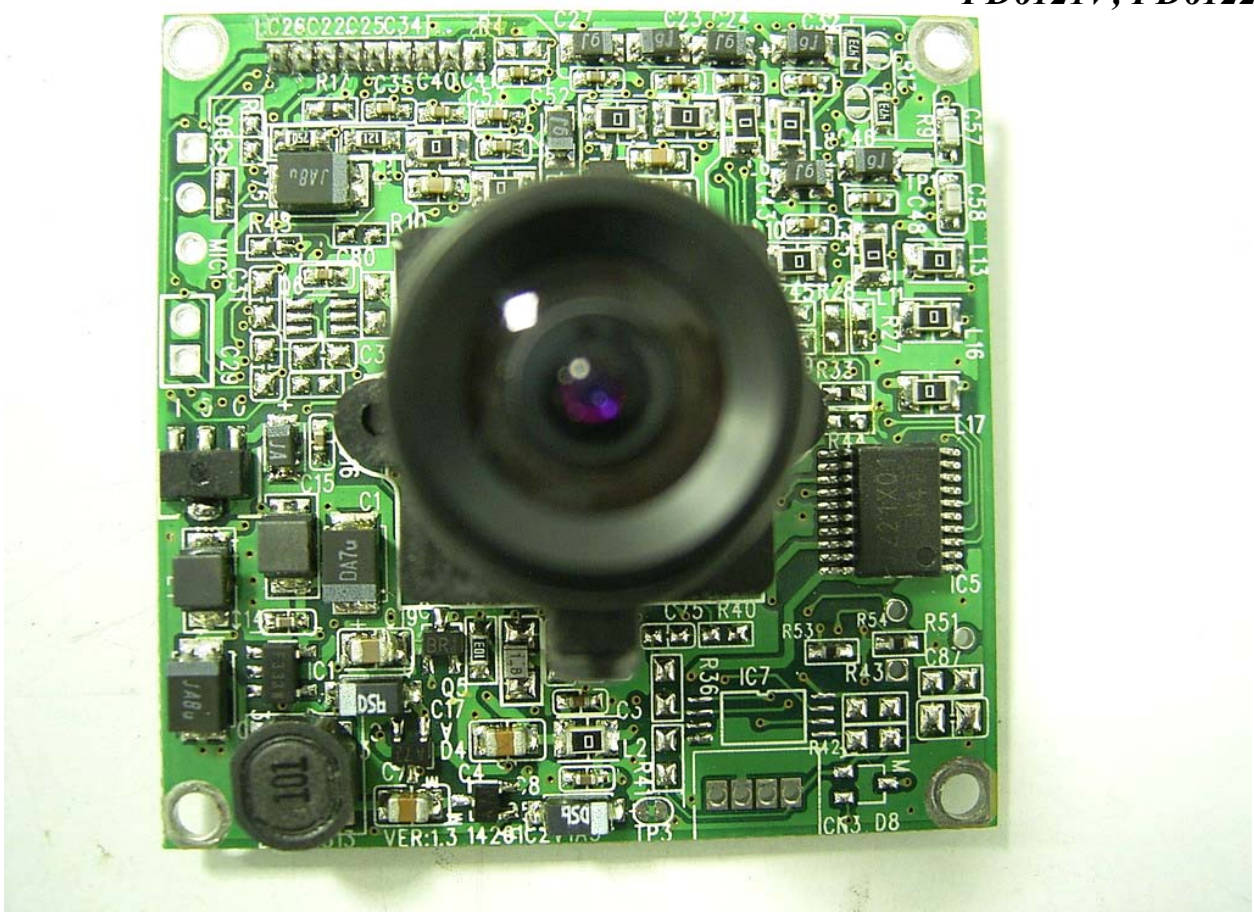

FD6121V, FD6122V