

VERIFICATION OF FCC PART 15 COMPLIANCE

*KES hereby verify that the subject product complies with all the
electromagnetic emission specified in the FCC Rule Part 15*

Product Description:	ANALOG CAMERA
Model/Brand Name:	SCB-6003N
Variant Model:	-
FCC Rule Part(s):	FCC 47CFR Part 15 Subpart B Class A Part 15.107(b) & Part 15.109(b)
FCC Procedure:	Verification
Applicant Name:	Hanwha Techwin Company Limited
Applicant Address:	1204, Changwon-daero, Seongsan-gu, Changwon-si, Gyeongsangnam-do
Manufacturer Name:	Tianjin Samsung Techwin Opto-Electronics Co., Ltd.
Manufacturer Address:	No.11 Weiliu Rd, Micro-Electronic Industrial Park, TEDA, Tianjin, 300385, People's Republic of China
Test Report Reference No.:	KES-E1-16T0042

ANALOG CAMERA, Model SCB-6003N has been tested in accordance with the measurement procedures specified in FCC 47CFR Part 15 Subpart B class A and has been shown to be complied with the electromagnetic emission limits specified in FCC Rule Part 15 Subpart B class A. A testing of the sample product has been valid for the sample tested based on the reference test report, KES-E1-16T0042

Date of Issue: 02. 11. 2016

Dong Hun, Jang
Technical Manager
Signature:



KES.Co., Ltd.

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EMC TEST REPORT For FCC

Test Report No. : KES-E1-16T0042

Date of Issue : Feb. 11, 2016

Product name : ANALOG CAMERA

Model/Type No. : SCB-6003N

Variant Model : -

Applicant : Hanwha Techwin Company Limited

Applicant Address : 204, Changwon-daero, Seongsan-gu, Changwon-si,
Gyeongsangnam-do, Korea

Manufacturer : Tianjin Samsung Techwin Opto-Electronic Co., Ltd.

Manufacturer Address : No.11 Weiliu Rd, Micro-Electronic Industrial Park, TEDA,
Tianjin, 300385, People's Republic of China

Equipment authorization : ☐ Declaration of Conformity
☒ Verification
☐ Certification

Date of Receipt : Jan. 06, 2016

Test date : Jan. 20, 2016 - Jan. 21, 2016

Test Results : ☒ In Compliance ☐ Not in Compliance

Tested by

Hyo Jin, Kim
EMC Test Engineer

Reviewed by

Dong-Hun, Jang
EMC Technical Manager

**KES Co., Ltd.**

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Test report No.:
KES-E1-16T0042
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REPORT REVISION HISTORY

Date	Test Report No.	Revision History
Feb. 11, 2016	KES-E1-16T0042	Issued

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1.0 General Product Description

Main Specifications of EUT are:

	SCB-6003N	SCB-6003P
Video		
Imaging Device	1/2.9" 2M CMOS	
Total Pixels	2,000(H) x 1,121(V) 2.24M pixels	
Effective Pixels	1,984(H) x 1,105(V) 2.19M pixels	
Scanning System	Progressive Scan	
Horizontal Resolution	1000 TVL	
Min. Illumination	Color : 0.15Lux (F1.2, 50IRE); 0.09Lux (F1.2, 30IRE) B/W : 0.015Lux (F1.2, 50IRE); 0.009Lux (F1.2, 30IRE)	
S / N Ratio	52dB (AGC off, Weight on)	
Video Output	BNC(AHD, CVBS Selectable)	
Resolution	1920 x 1080	
Max. Framerate	30fps @1080p, 30fps@ 720p	
Lens Type		
Focal Length (Zoom Ratio)	-	
Max. Aperture Ratio	-	
Angular Field of View	-	
Min. Object Distance	-	
Focus Control	-	
Lens Type	-	
Mount Type	C/CS	
Auto Back Focus(ABF)	-	
Operational		
IR LED	-	
Viewable length	-	
On Screen Display	English, Korean, Japanese, German, Italian, French, Spanish, Russian, Czech, Polish, Romanian, Serbian, Swedish, Danish, Turkish, Portuguese	
Camera Title	Off / On (Displayed 15 characters)	
Day & Night	Auto (ICR) / External / Color / B/W	
Backlight Compensation	Off / User BLC / HLC	
Wide Dynamic Range	D-WDR	
Contrast Enhancement	-	
Digital Noise Reduction	SSNR4 (Off / On)	

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	SCB-6003N	SCB-6003P
Defog	AUTO / MANUAL / OFF	
Digital Image Stabilization	Not support	
Motion Detection	Off / On(4 zones)	
Privacy Masking	Off / On (4zones rectangle)	
Gain Control	Off / Low / Middle / High / Very High	
White Balance	ATW / Outdoor / Indoor / Manual / AWC(1,800K ~ 10,500K)	
Electronic Shutter Speed	1 sec ~ 1/12,000 sec	
Digital Zoom	Not support	
Reverse	Off / H-Rev / V-Rev / HV-Rev	
Profile	Basic, Day & Night, Backlight, ITS, Indoor, User	
Intelligent Video Analytics	Not support	
Alarm	MD output 1,External D/N 1	
Remote control interface	Coaxial, RS-485	
Protocol	Coax : ACP RS-485: Samsung-T, Samsung-E, Pelco-D, Pelco-P, Panasonic, Bosch, Honeywell, Vicon, AD, GE	
Video Transmission Distance	500m (75-5 Coaxial Cable)	
Environmental		
Operating Temperature / Humidity	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH	
Ingress Protection	-	
Vandal Resistance	-	
Electrical		
Input Voltage/Current	Dual (24VAC±10% & 12VDC±10%)	
Power Consumption	Max. 3.8W	
Mechanical		
Color / Material	Ivory / Plastic	
Dimension (WxHxD)	92.7 x 59.6 x 68.4mm	
Weight	204g	

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1.1 Test Voltage & Frequency

Unless indicated otherwise on the individual data sheet or test results, the test voltage and frequency was as indicated below.

Voltage ☐ 100 Vac ☐ 110 Vac ☐ 120 Vac ☒ 24 Vac ☒ 12 Vdc

Frequency ☐ 50 Hz ☐ 60 Hz ☐ Hz

1.2 Variant Model Differences

Not applicable

1.3 Device Modifications

Not applicable

1.4 Equipment Under Test

Description	Model Number	Serial Number	Manufacturer	Remarks
ANALOG CAMERA	SCB-6003N	-	Tianjin Samsung Techwin Opto-Electronic Co., Ltd.	E.U.T

1.5 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
MONITOR	M1950DM	-	204KCXM31738	-
AC/DC Adapter	PA-1650-68	OE9FA612314100070	LITE-ON TECHNOLOGY CORPORATION	-
Controller	SPC-1010	-	Samsung Electronic Co.,Ltd.	-
AC/DC Adapter	-	-	-	-

1.6 External I/O Cabling

Start		END		Cable Spec.	
Description	I/O Port	Description	I/O Port	Length	Shield
ANALOG CAMERA (E.U.T)	BNC	MONITOR	RCA	5.0	U
	RS-485	Controller	RS-485	3.0	U

* Unshielded=U, Shielded=S

1.7 EUT Operating Mode(s)

Equipment under test was operated during the measurement under the following conditions:

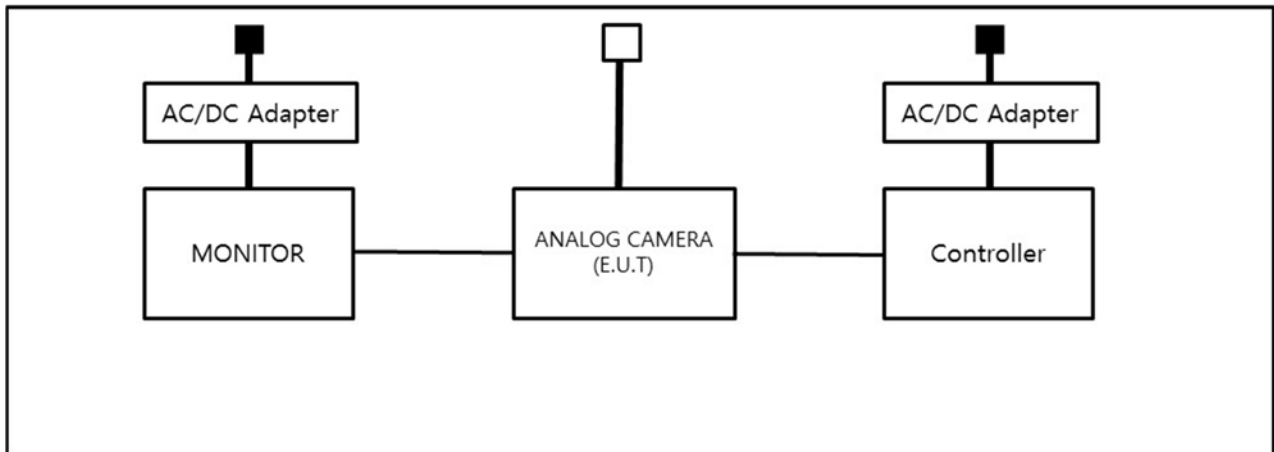
Test mode	Normal operating
OP	MONITOR CHECK

- Input power condition during the measurements was 12 V (dc), 24 V (ac)

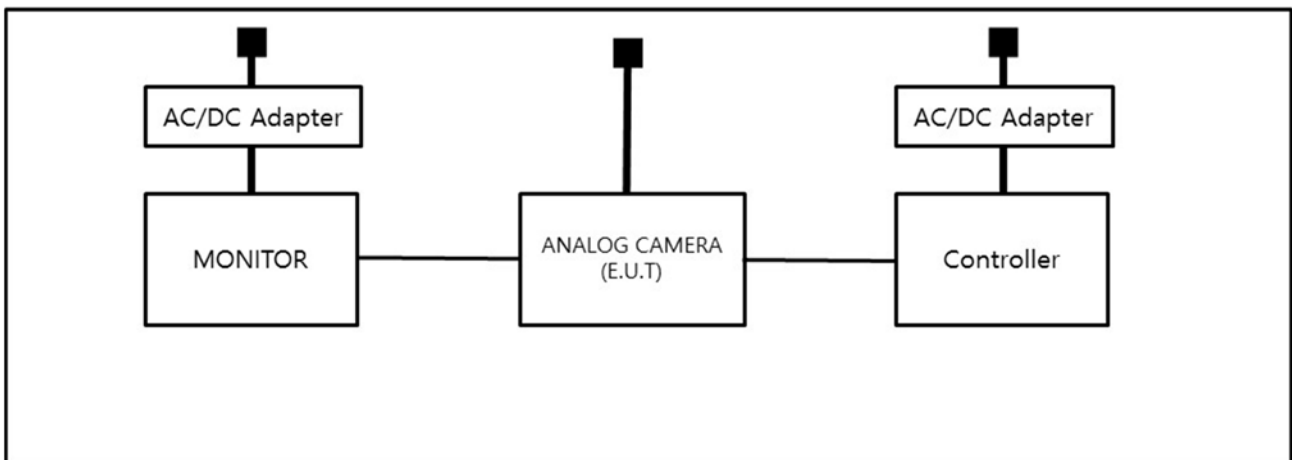
1.8 Configuration

■ AC Main
□ DC Main

- 12 V (dc)



- 24 V (ac)



1.9 Calibration Details of Equipment Used for Measurement

Test equipment and test accessories are calibrated on regular basis. The maximum time between calibrations is one year or what is recommended by the manufacturer, whichever is less.

1.10 Test Facility

The measurement facility is located at 473-29 Gayeo-ro, Yeosu-si, Gyeonggi-do, 12658, Korea. The sites are constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22.

1.11 Laboratory Accreditations and Listings

Country	Agency	Scope of Accreditation	Logo
USA	FCC	3 & 10 meter Open Area Test Sites and one conducted site to perform FCC Part 15/18 measurements.	
JAPAN	VCCI	Mains Ports Conducted Interference Measurement, Telecommunication Ports Conducted Disturbance Measurement and Radiation 10 meter site, Facility for measuring radiated disturbance above 1 GHz	 R-4308, C-4798, T-2311, G-914
KOREA	MSIP	EMI (10 meter Open Area Test Site and two conducted sites) Radio(3 & 10 meter Open Area Test Sites and one conducted site) EMS (ESD, RS, EFT/Burst, Surge, CS, Magnetic, Dips and interruptions)	 KR0100
Canada	IC	3 & 10 meter Open Area Test Sites and one conducted site	 4769B-1
Europe	CE	EMI (10 meter Open Area Test Site and two conducted sites) Radio(3 & 10 meter Open Area Test Sites and one conducted site) EMS (ESD, RS, EFT/Burst, Surge, CS, Magnetic, Dips and interruptions)	
International	KOLAS	EMI (10 meter Open Area Test Site and two conducted sites) Radio(3 & 10 meter Open Area Test Sites and one conducted site) EMS (ESD, RS, EFT/Burst, Surge, CS, Magnetic, Dips and interruptions)	

2.0 Test Regulations

The emissions tests were performed according to following regulations:

☐ **EMC – Directive 2004/108/EC**

☐ EN 61000-6-3:2011

☐ EN 61000-6-1:2007

☐ EN 61000-6-4:2007 +A1:2011

☐ EN 61000-6-2:2005

☐ EN 55011:2007 +A1:2010

☐ Group 1
☐ Class A

☐ Group 2
☐ Class B

☐ EN 55014-1:2006 +A2:2011

☐ EN 55014-2:1997 +A2:2008

☐ EN 55015:2013

☐ EN 55022:2010

☐ Class A

☐ Class B

☐ EN 55024:2010

☐ EN 50130-4:2011 +A1:2014

☐ EN 61000-3-2:2014

☐ EN 61000-3-3:2013

☐ EN 61326-1:2013

☐ VCCI V-3 / 2013.04

☐ Class A

☐ Class B

☐ AS/NZS CISPR22:2009 +A1:2010

☐ Class A

☐ Class B

☒ 47 CFR Part 15, Subpart B / ANSI C63.4-2009 ☒ Class A

☐ Class B

☐ IC Regulation ICES-003 : 2012
/ ANSI C63.4-2014

☐ Class A

☐ Class B

☐ CISPR 22:2009 +A1:2010

☐ Class A

☐ Class B



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☐ **R&TTE- Directive 1999/5/EC**

☐ EN 301 489-1 V1.9.2

- ☐ Equipment for fixed use
- ☐ Equipment for vehicular use
- ☐ Equipment for portable use

☐ EN 301 489-3 V1.6.1

☐ EN 301 489-17 V2.2.1

☐ EN 60945:2002

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2.1 Conducted Emissions at Mains Power Ports

Test Date

Jan. 20, 2016

Test Location

Electro wave Shieldroom

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test Receiver	ESR3	R&S	101783	05, 06, 2016
☒	LISN	ENV216	R&S	101137	02, 10, 2016
☒	LISN	ENV216	R&S	101786	05, 06, 2016
☒	Electro wave Shieldroom	-	SEMITEC	-	-

Test Conditions

Temperature: 18,4 °C

Relative Humidity: 37,5 %

Frequency Range of Measurement

150 kHz to 30 MHz

Instrument Settings

IF Band Width: 9 kHz

Test Results

The requirements are:

- ☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

RemarksSee Appendix A for test data.

2.2 Radiated Electric Field Emissions(Below 1 GHz)

Test Date

Jan. 21, 2016

Test Location

☐ Open Area Test Site #1 ☒ Open Area Test Site #2

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test Receiver	ESR3	R&S	101781	05, 06, 2016
☒	Trilog-Broadband Antenna	VULB 9163	SCHWARZBECK	9168-713	05, 15, 2017
☒	Open Area Test Site	-	KES	-	-
☒	Antenna Mast	-	DAEIL EMC	-	-
☒	Turn Table	-	DAEIL EMC	-	-

Test Conditions

Temperature: -4,1 °C

Relative Humidity: 53.0 %

Frequency Range of Measurement

30 MHz to 1 GHz

Instrument Settings

IF Band Width: 120 kHz

Test Results

The requirements are:

- ☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks

See Appendix A for test data.



2.3 Radiated Electric Field Emissions(Above 1 GHz)

Test Date

Jan. 21, 2016

Test Location

Semi Anchoic Chamber #2

Test Equipment

Used	Description	Model Number	Manufacturer	Serial Number	Cal. Due
☒	EMI Test Receiver	ESU26	R&S	100552	05, 06, 2016
☒	Broadband Coaxial Preamplifier	BBV 9718	Schwarzbeck Mess - Elektronik	9718-246	10, 23, 2016
☒	DOUBLE RIDGED HORN ANTENNA	SAS-571	A.H.SYSTEM,INC	781	05, 07, 2017
☒	Semi Anchoic Chamber #2	-	SEMITEC	-	-
☒	Antenna Mast	-	AUDIX	-	-
☒	Turn Table	-	AUDIX	-	-

Test Conditions

Temperature: 21,2 °C
Relative Humidity: 37,2 %

Frequency Range of Measurement

1 GHz to 5 GHz

Instrument Settings

IF Band Width: 1 MHz

Test Results

The requirements are:

- ☒ PASS
☐ NOT PASS
☐ NOT APPLICABLE

Remarks

See Appendix A for test data.

APPENDIX A – TEST DATA

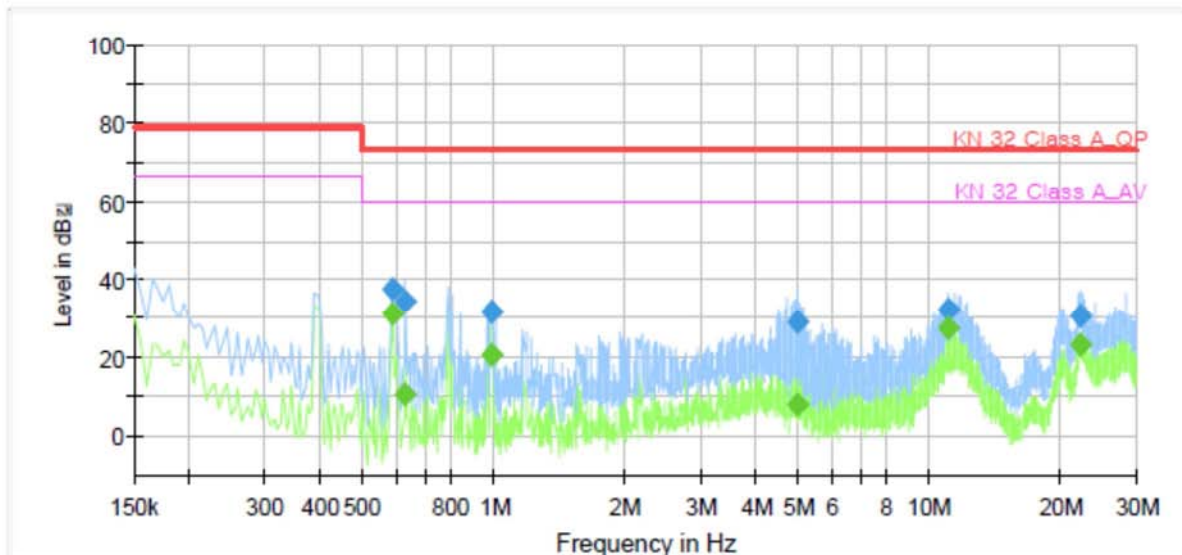
Conducted Emissions at Mains Power Ports

■ MODE : 24 V (ac)

[HOT]

Common Information

Test Description:	Conducted Emission
Model No.:	SCB-6003N
Mode	24 V
Operator Name:	KES



Final Result

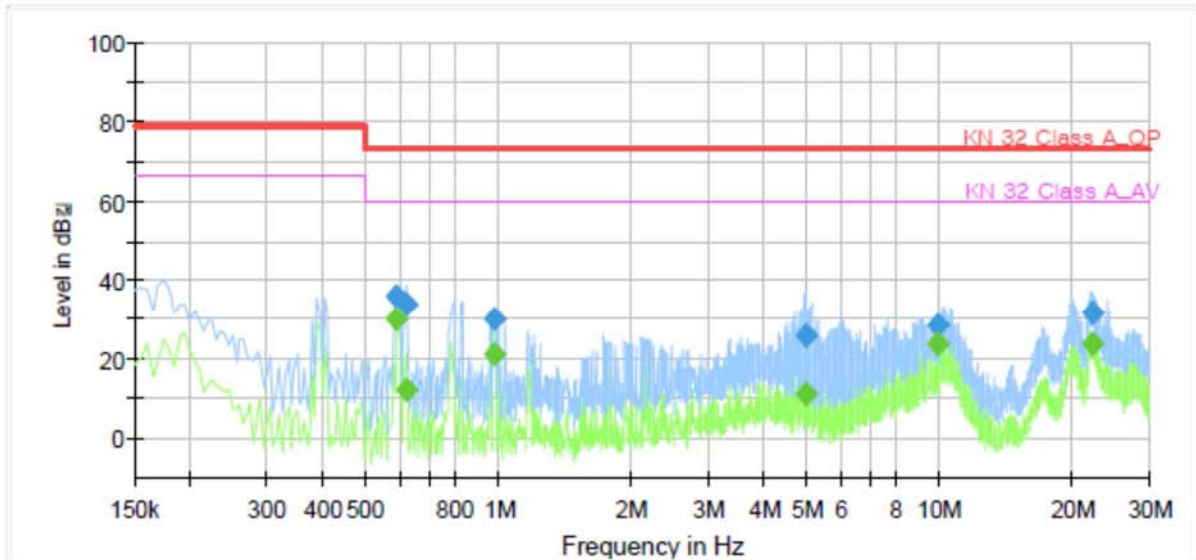
Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.590000	---	31.23	60.00	28.77	1000.0	9.000	L1	9.7
0.590000	37.75	---	73.00	35.25	1000.0	9.000	L1	9.7
0.630000	---	10.63	60.00	49.37	1000.0	9.000	L1	9.7
0.630000	34.25	---	73.00	38.75	1000.0	9.000	L1	9.7
0.995000	---	20.60	60.00	39.40	1000.0	9.000	L1	9.7
0.995000	31.67	---	73.00	41.33	1000.0	9.000	L1	9.7
4.995000	---	7.82	60.00	52.18	1000.0	9.000	L1	9.8
4.995000	28.94	---	73.00	44.06	1000.0	9.000	L1	9.8
11.070000	---	27.79	60.00	32.21	1000.0	9.000	L1	10.0
11.070000	32.46	---	73.00	40.54	1000.0	9.000	L1	10.0
22.385000	---	23.21	60.00	36.79	1000.0	9.000	L1	10.2
22.385000	30.68	---	73.00	42.32	1000.0	9.000	L1	10.2

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[NEUTRAL]

Common Information

Test Description:	Conducted Emission
Model No.:	SCB-6003N
Mode	24 V
Operator Name:	KES



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.590000	---	30.14	60.00	29.86	1000.0	9.000	N	9.7
0.590000	36.18	---	73.00	36.82	1000.0	9.000	N	9.7
0.620000	---	12.44	60.00	47.56	1000.0	9.000	N	9.7
0.620000	33.93	---	73.00	39.07	1000.0	9.000	N	9.7
0.985000	---	21.08	60.00	38.92	1000.0	9.000	N	9.7
0.985000	30.37	---	73.00	42.63	1000.0	9.000	N	9.7
4.985000	---	11.21	60.00	48.79	1000.0	9.000	N	9.8
4.985000	25.83	---	73.00	47.17	1000.0	9.000	N	9.8
9.920000	---	23.91	60.00	36.09	1000.0	9.000	N	10.0
9.920000	28.62	---	73.00	44.38	1000.0	9.000	N	10.0
22.260000	---	23.78	60.00	36.22	1000.0	9.000	N	10.0
22.260000	31.56	---	73.00	41.44	1000.0	9.000	N	10.0

**Radiated Electric Field Emissions(Below 1 GHz)**

■ MODE : 12 V (dc)

Frequency	Amplitude	ANT	ANT. Height	Correction Factor		Corrected Amplitude	Applicable Limit	Margin
[MHz]	[dB μ V]	Polar. (H/V)	[m]	ANT. [dB/m]	Cable [dB]	[dB μ V/m]	[dB μ V/m]	[dB]
122.15	20.72	H	4.00	9.47	2.86	33.05	40.00	6.95
223.03	19.33	H	4.00	11.81	4.08	35.22	40.00	4.78
371.29	22.82	H	4.00	15.03	5.45	43.30	47.00	3.70
483.00	17.89	H	4.00	16.86	6.44	41.19	47.00	5.81
557.68	17.35	H	2.86	18.37	7.05	42.77	47.00	4.23
594.54	15.10	H	2.62	19.18	7.35	41.63	47.00	5.37

* H : Horizontal, V : Vertical

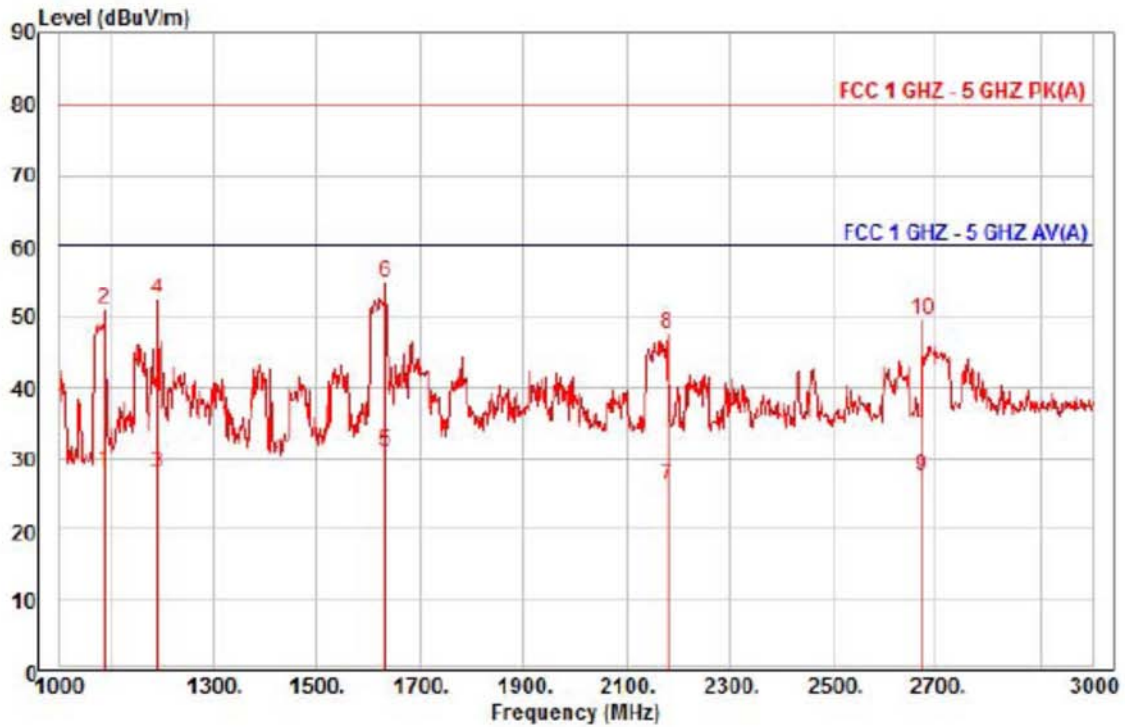
■ MODE : 24 V (ac)

Frequency	Amplitude	ANT	ANT. Height	Correction Factor		Corrected Amplitude	Applicable Limit	Margin
[MHz]	[dB μ V]	Polar. (H/V)	[m]	ANT. [dB/m]	Cable [dB]	[dB μ V/m]	[dB μ V/m]	[dB]
48.43	12.35	V	1.00	13.88	1.72	27.95	40.00	12.05
223.03	11.63	H	4.00	11.81	4.08	27.52	40.00	12.48
297.72	12.34	H	4.00	13.34	4.90	30.58	47.00	16.42
371.44	16.23	V	1.00	15.04	5.45	36.72	47.00	10.28
446.13	15.32	H	2.90	16.35	6.15	37.82	47.00	9.18
482.66	15.56	V	1.97	16.86	6.44	38.86	47.00	8.14

* H : Horizontal, V : Vertical

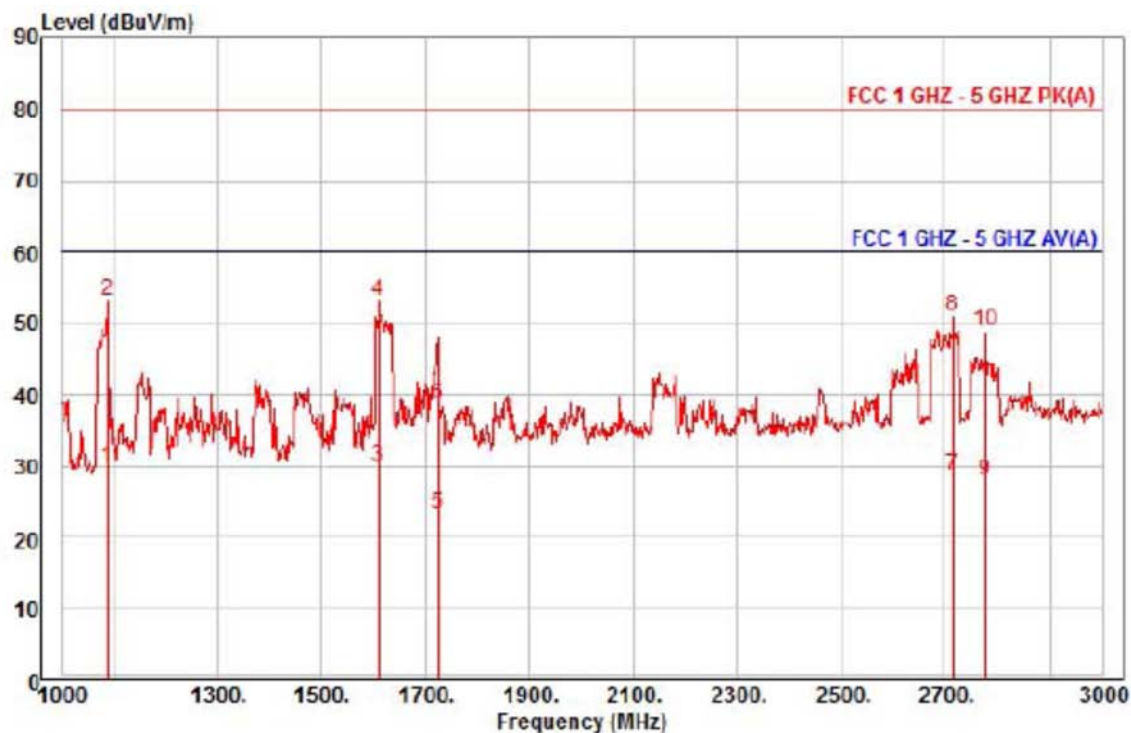
Radiated Electric Field Emissions(Above 1 GHz)

■ MODE : 12 V (dc)



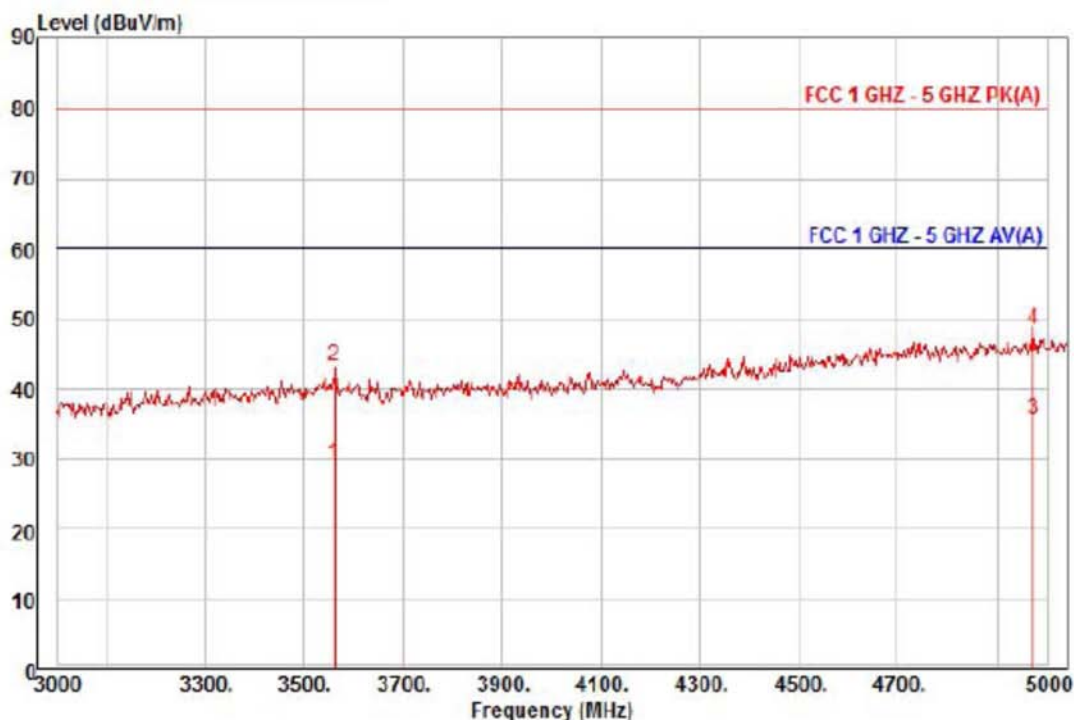
Site : chamber
Condition: FCC 1 GHz - 5 GHz PK(A) 3m HORN781(2015.05.07) horizontal
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project :
Model : SCB-6003N
Mode : 12 V
Memo : (1 - 3) GHz

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	1088.00	37.71	24.26	6.30	40.08	347	60.00	-31.81	horizontal	Average
2	1088.00	60.45	24.26	6.30	40.08	347	80.00	-29.07	horizontal	Peak
3	1190.00	36.64	24.66	6.60	40.03	321	60.00	-32.13	horizontal	Average
4	1190.00	61.15	24.66	6.60	40.03	321	80.00	-27.62	horizontal	Peak
5 av	1632.00	36.48	26.42	7.86	39.81	347	60.00	-29.05	horizontal	Average
6 pp	1632.00	60.45	26.42	7.86	39.81	347	80.00	-25.08	horizontal	Peak
7	2180.00	28.22	28.32	9.42	39.73	60	60.00	-33.77	horizontal	Average
8	2180.00	49.58	28.32	9.42	39.73	60	80.00	-32.41	horizontal	Peak
9	2674.00	27.08	29.53	10.79	40.02	318	60.00	-32.62	horizontal	Average
10	2674.00	49.24	29.53	10.79	40.02	318	80.00	-30.46	horizontal	Peak



Site : chamber
Condition: FCC 1 GHZ - 5 GHZ PK(A) 3m HORN781(2015.05.07) vertical
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project :
Model : SCB-6003N
Mode : 12 V
Memo : (1 - 3) GHz

	Freq	Read Level	Ant Factor	Cable Loss	Preamplifier Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	1088.00	39.13	24.26	6.30	40.08	338	60.00	-30.39	vertical	Average
2	1088.00	62.76	24.26	6.30	40.08	338	80.00	-26.76	vertical	Peak
3 av	1610.00	35.50	26.33	7.80	39.82	338	60.00	-30.19	vertical	Average
4 pp	1610.00	59.03	26.33	7.80	39.82	338	80.00	-26.66	vertical	Peak
5	1724.00	28.25	26.78	8.13	39.77	358	60.00	-36.61	vertical	Average
6	1724.00	43.31	26.78	8.13	39.77	358	80.00	-41.55	vertical	Peak
7	2716.00	28.27	29.63	10.91	40.05	360	60.00	-31.24	vertical	Average
8	2716.00	50.54	29.63	10.91	40.05	360	80.00	-28.97	vertical	Peak
9	2778.00	27.12	29.79	11.08	40.08	358	60.00	-32.09	vertical	Average
10	2778.00	47.94	29.79	11.08	40.08	358	80.00	-31.27	vertical	Peak



Site : chamber
Condition: FCC 1 GHZ - 5 GHZ PK(A) 3m HORN781(2015.05.07) horizontal
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project :
Model : SCB-6003N
Mode : 12 V
Memo : (3 - 5) GHz

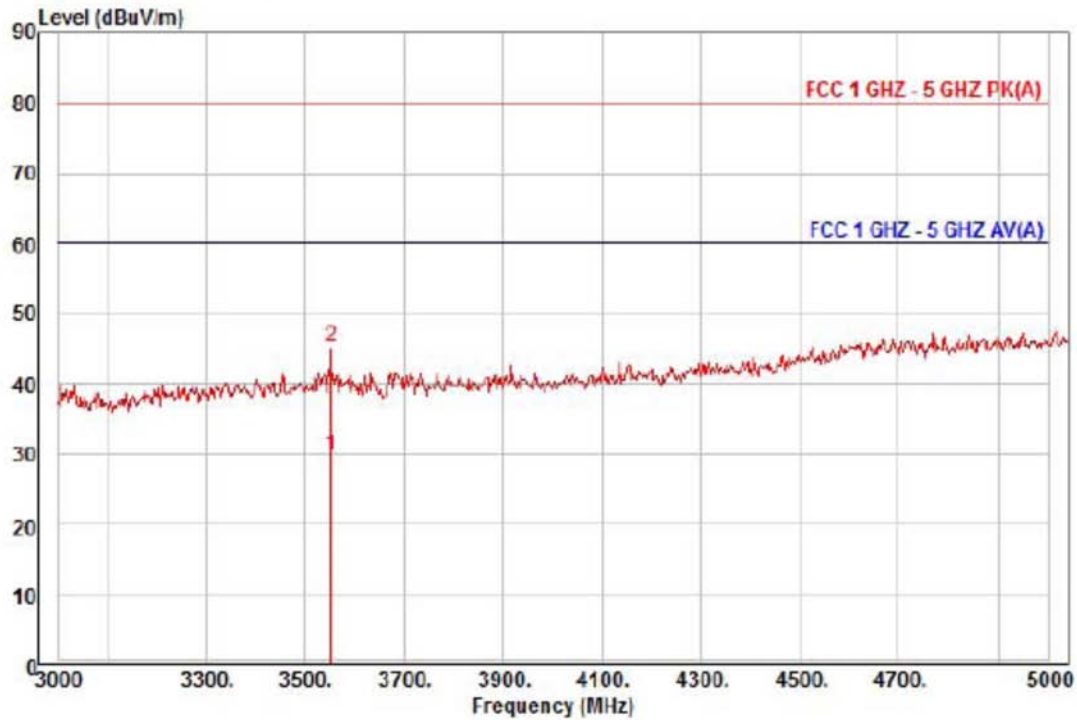
	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	3561.00	25.88	31.27	12.45	40.32	75	60.00	-30.72	horizontal	Average
2	3561.00	39.80	31.27	12.45	40.32	75	80.00	-36.80	horizontal	Peak
3 pp	4971.00	23.64	37.55	14.82	40.41	106	60.00	-24.40	horizontal	Average
4 pk	4971.00	36.67	37.55	14.82	40.41	106	80.00	-31.37	horizontal	Peak



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Test report No.:
KES-E1-16T0042
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Site : chamber
Condition: FCC 1 GHZ - 5 GHZ PK(A) 3m HORN781(2015.05.07) vertical
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project :
Model : SCB-6003N
Mode : 12 V
Memo : (3 - 5) GHz

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1 pp	3552.00	26.28	31.26	12.43	40.32	5	60.00	-30.35	vertical	Average
2 pk	3552.00	41.65	31.26	12.43	40.32	5	80.00	-34.98	vertical	Peak

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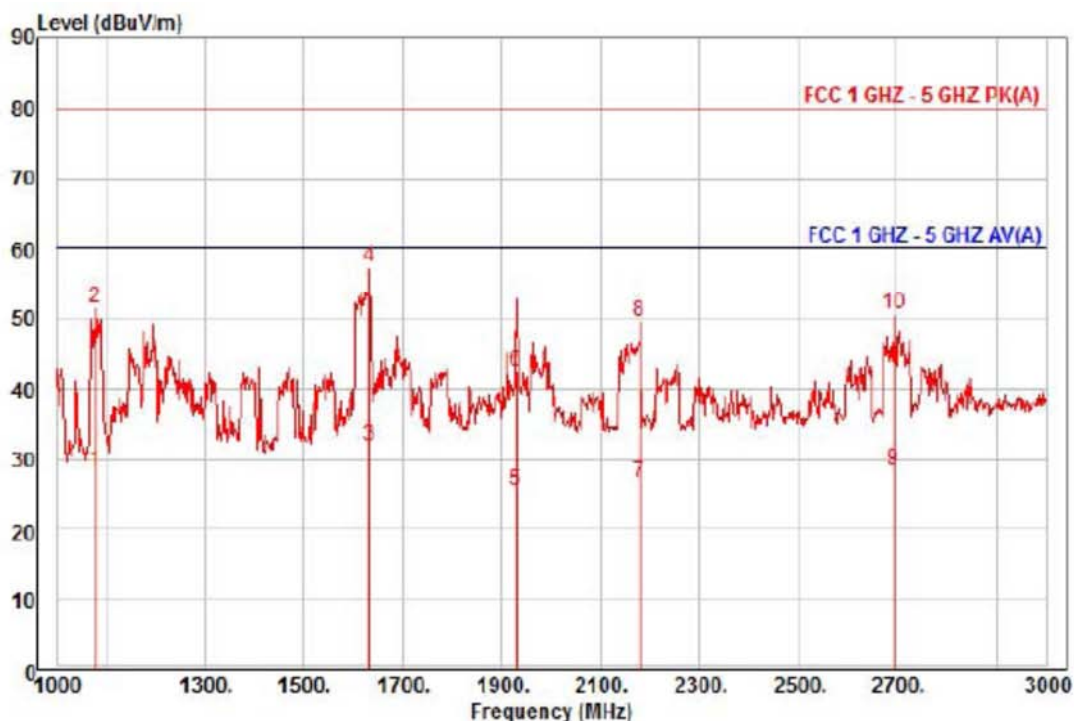


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Test report No.:
KES-EI-16T0042
Page (22) of (35)

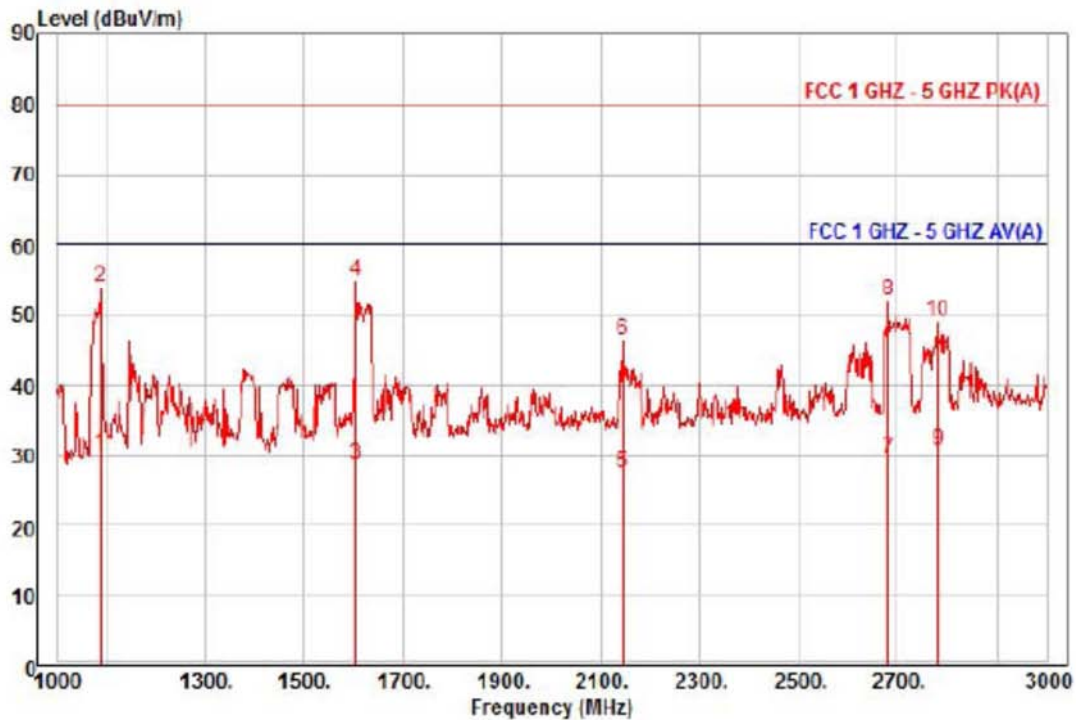
■ MODE : 24 V (ac)



Site : chamber
Condition: FCC 1 GHz - 5 GHz PK(A) 3m HORN781(2015.05.07) horizontal
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project :
Model : SCB-6003N
Mode : 24 V
Memo : (1 - 3) GHz

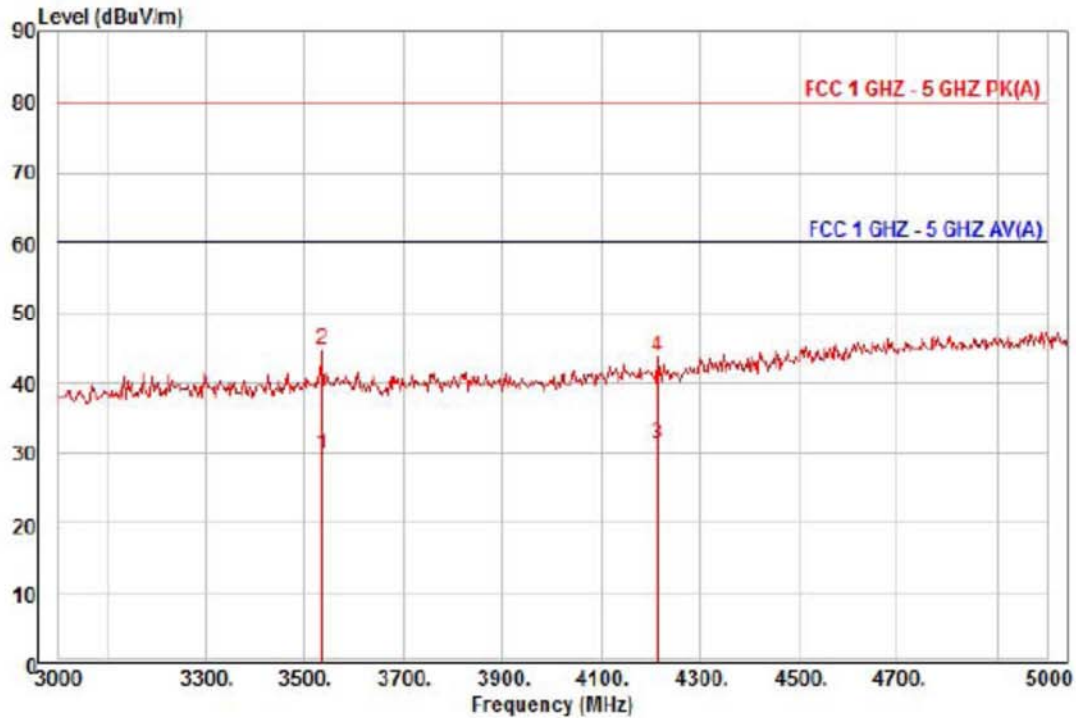
	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	1078.00	37.84	24.22	6.27	40.08	22	60.00	-31.75	horizontal	Average
2	1078.00	61.10	24.22	6.27	40.08	22	80.00	-28.49	horizontal	Peak
3 av	1632.00	37.50	26.42	7.86	39.81	346	60.00	-28.03	horizontal	Average
4 pp	1632.00	62.84	26.42	7.86	39.81	346	80.00	-22.69	horizontal	Peak
5	1930.00	28.83	27.60	8.72	39.66	283	60.00	-34.51	horizontal	Average
6	1930.00	45.66	27.60	8.72	39.66	283	80.00	-37.68	horizontal	Peak
7	2180.00	28.71	28.32	9.42	39.73	39	60.00	-33.28	horizontal	Average
8	2180.00	51.60	28.32	9.42	39.73	39	80.00	-30.39	horizontal	Peak
9	2694.00	28.11	29.58	10.85	40.03	323	60.00	-31.49	horizontal	Average
10	2694.00	50.04	29.58	10.85	40.03	323	80.00	-29.56	horizontal	Peak

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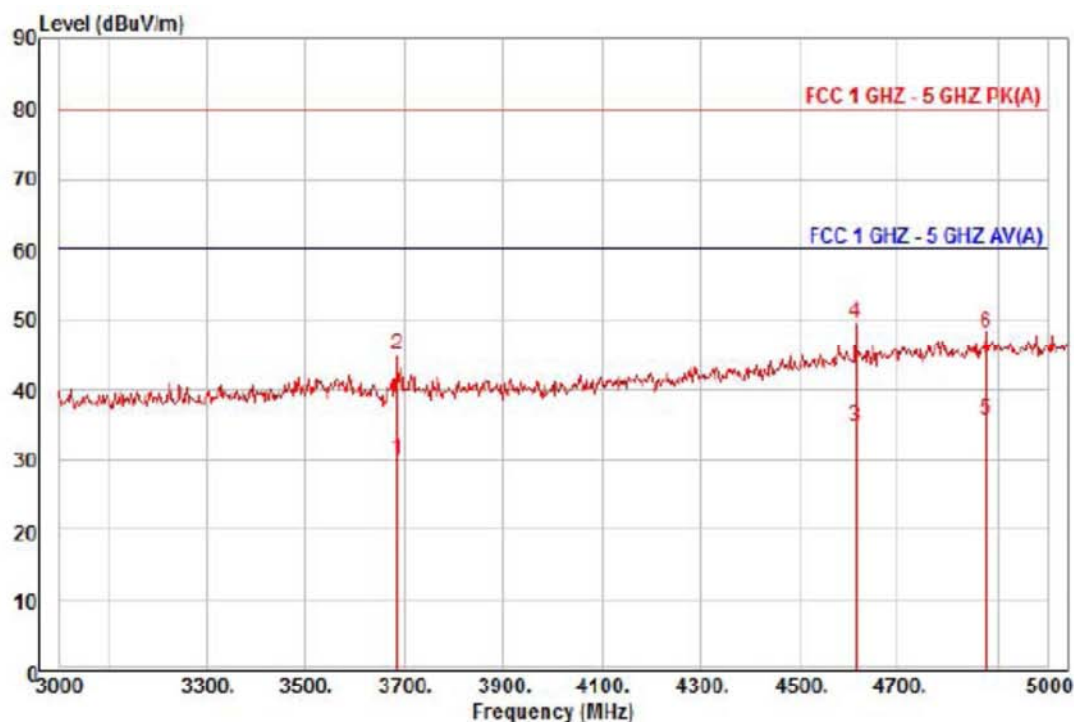
Site : chamber
Condition: FCC 1 GHz - 5 GHz PK(A) 3m HORN781(2015.05.07) vertical
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project :
Model : SCB-6003N
Mode : 24 V
Memo : (1 - 3) GHz

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	1088.00	39.64	24.26	6.30	40.08	344	60.00	-29.88	vertical	Average
2	1088.00	63.56	24.26	6.30	40.08	344	80.00	-25.96	vertical	Peak
3	1604.00	34.51	26.31	7.78	39.82	324	60.00	-31.22	vertical	Average
4 pp	1604.00	60.70	26.31	7.78	39.82	324	80.00	-25.03	vertical	Peak
5	2146.00	29.67	28.24	9.33	39.71	333	60.00	-32.47	vertical	Average
6	2146.00	48.47	28.24	9.33	39.71	333	80.00	-33.67	vertical	Peak
7	2682.00	28.98	29.55	10.82	40.03	356	60.00	-30.68	vertical	Average
8	2682.00	51.72	29.55	10.82	40.03	356	80.00	-27.94	vertical	Peak
9 av	2784.00	29.84	29.80	11.10	40.08	5	60.00	-29.34	vertical	Average
10	2784.00	48.30	29.80	11.10	40.08	5	80.00	-30.88	vertical	Peak



Site : chamber
Condition: FCC 1 GHz - 5 GHz PK(A) 3m HORN781(2015.05.07) horizontal
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project :
Model : SCB-6003N
Mode : 24 V
Memo : (3 - 5) GHz

	Freq	Read Level	Ant Factor	Cable Loss	Preamplifier Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	3534.00	26.40	31.23	12.41	40.32	307	60.00	-30.28	horizontal	Average
2 pk	3534.00	41.42	31.23	12.41	40.32	307	80.00	-35.26	horizontal	Peak
3 pp	4215.00	24.84	33.24	13.43	40.41	148	60.00	-28.90	horizontal	Average
4	4215.00	37.35	33.24	13.43	40.41	148	80.00	-36.39	horizontal	Peak



Site : chamber
Condition: FCC 1 GHZ - 5 GHZ PK(A) 3m HORN781(2015.05.07) vertical
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project :
Model : SCB-6003N
Mode : 24 V
Memo : (3 - 5) GHz

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	3684.00	26.13	31.48	12.61	40.35	4	60.00	-30.13	vertical	Average
2	3684.00	41.20	31.48	12.61	40.35	4	80.00	-35.06	vertical	Peak
3	4614.00	25.19	35.52	14.16	40.41	13	60.00	-25.54	vertical	Average
4 pk	4614.00	40.15	35.52	14.16	40.41	13	80.00	-30.58	vertical	Peak
5 pp	4875.00	24.22	37.01	14.64	40.41	270	60.00	-24.54	vertical	Average
6	4875.00	36.75	37.01	14.64	40.41	270	80.00	-32.01	vertical	Peak

Test Setup Photos and Configuration

Conducted Voltage Emissions



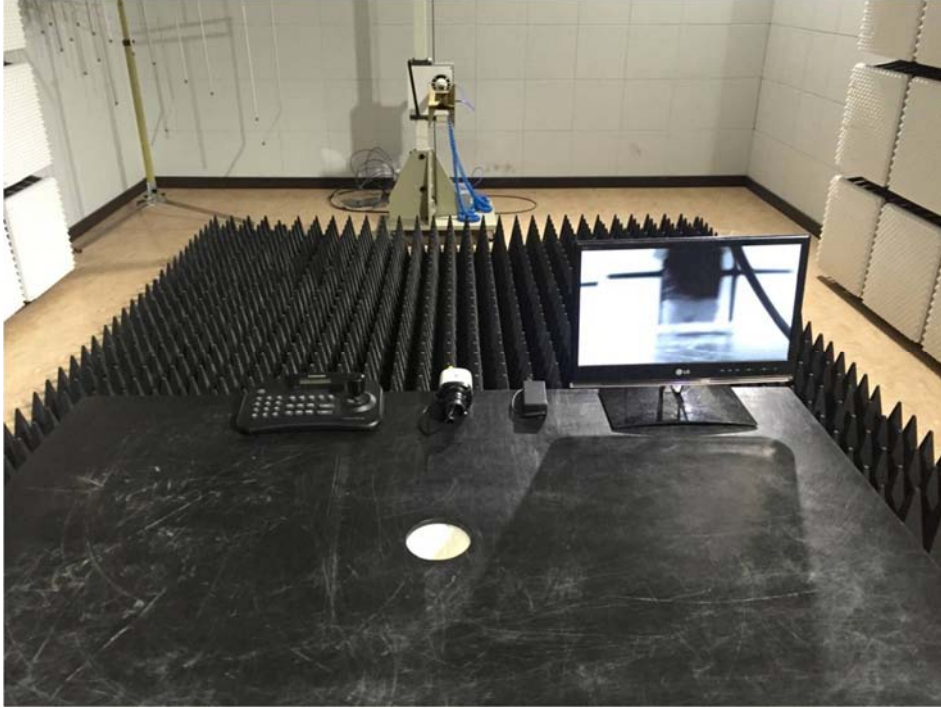
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Radiated Electric Field Emissions(Below 1 GHz)



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Radiated Electric Field Emissions(Above 1 GHz)



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EUT External Photographs

(Top)



(Bottom)



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EUT Internal Photographs

(Internal View)

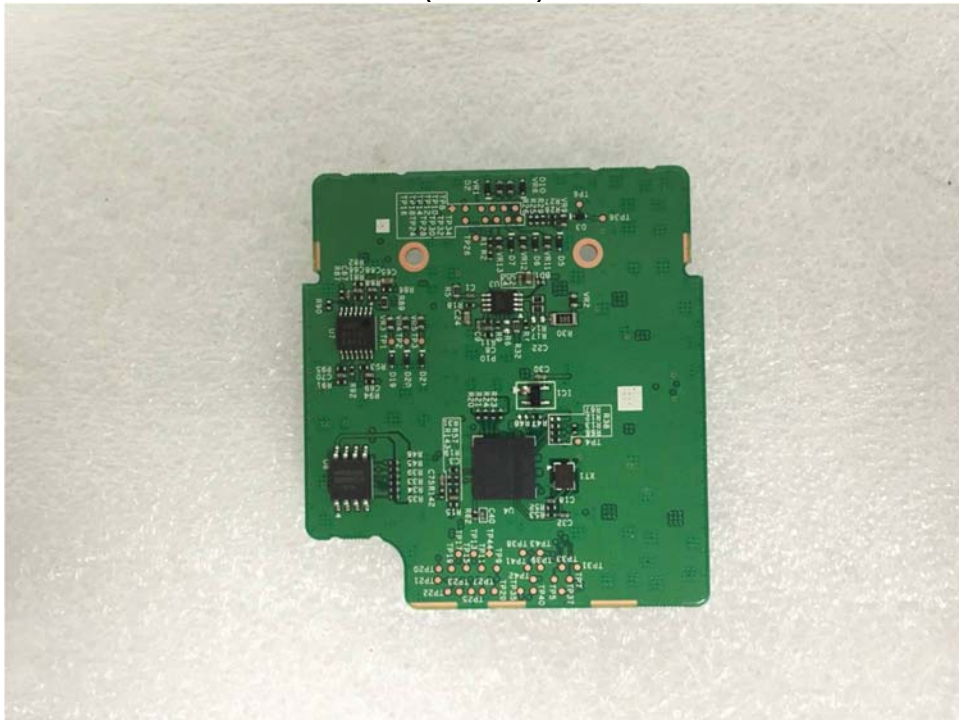


Main Board EUT Internal View – Main Board

(Top)



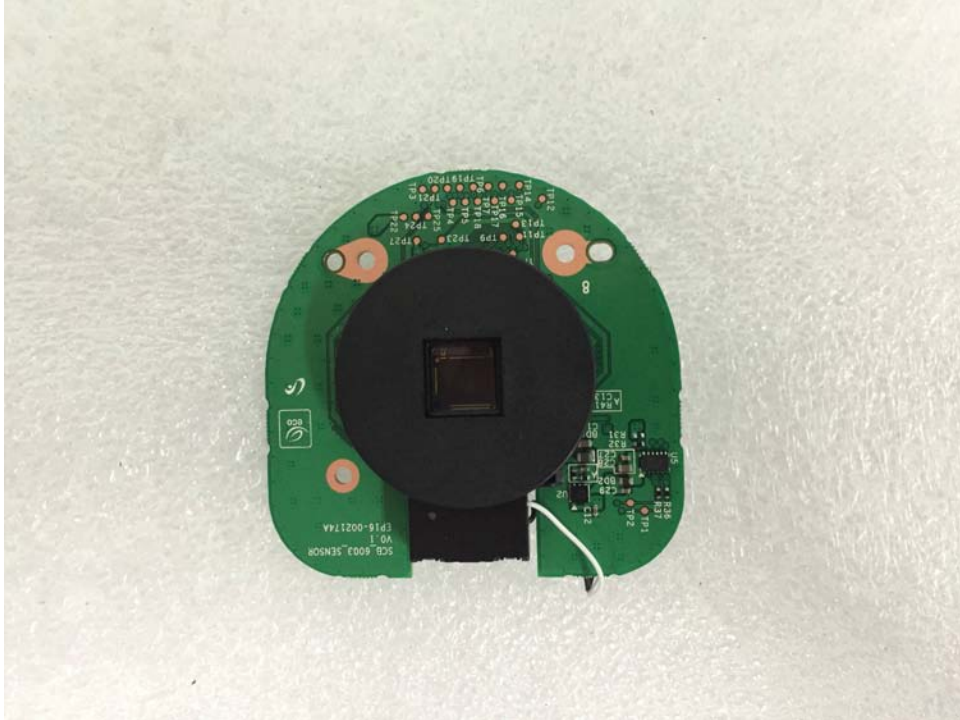
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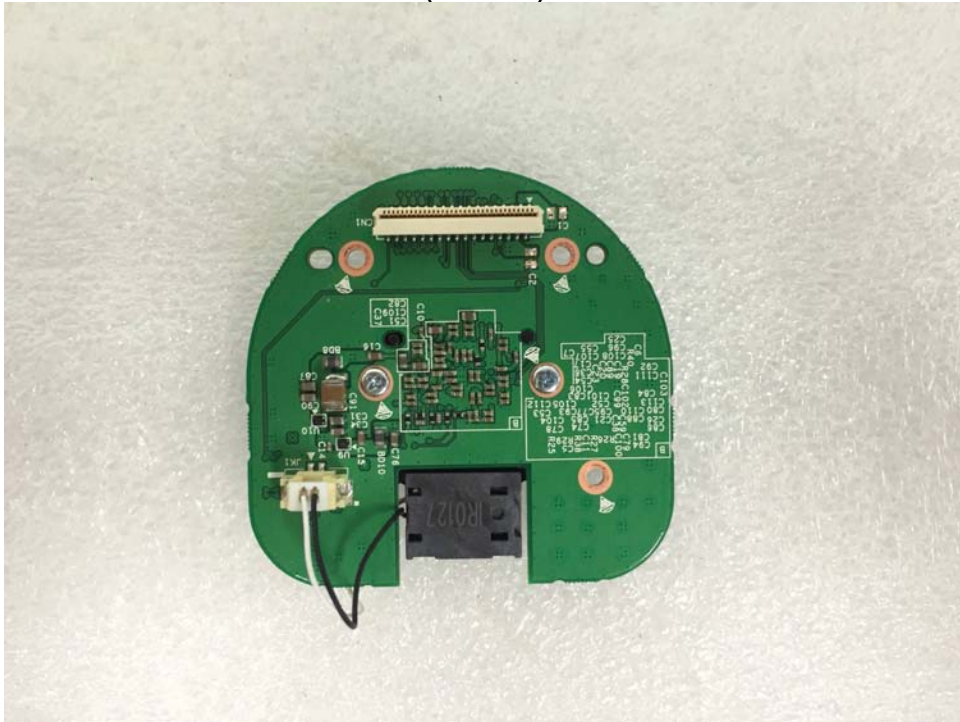
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Main Board EUT Internal View – Lens Board

(Top)



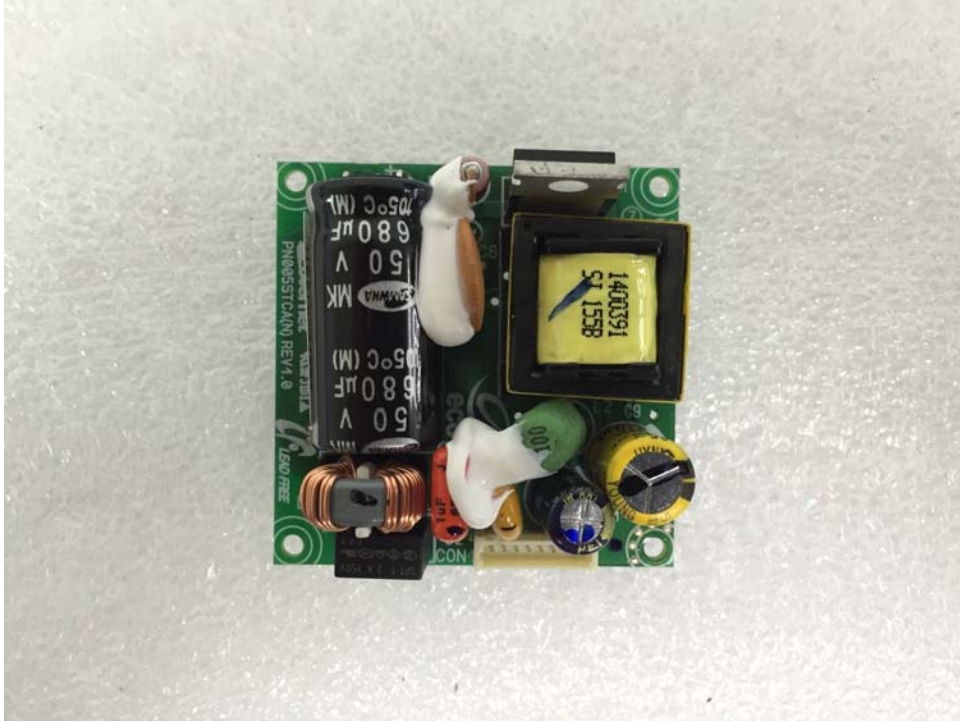
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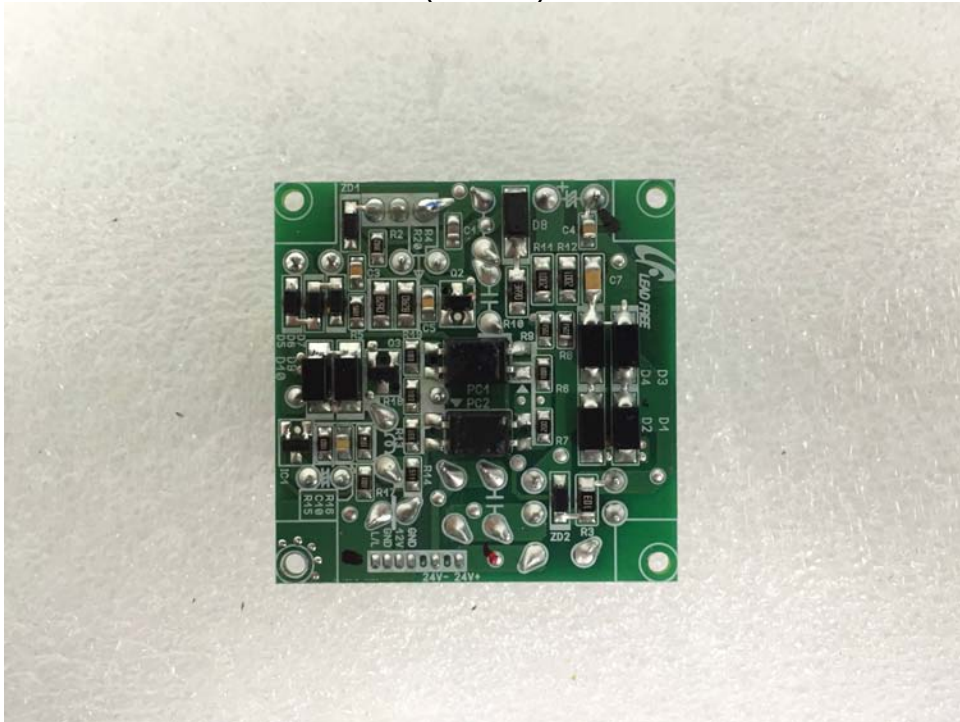
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Main Board EUT Internal View – Power Board

(Top)



(Bottom)



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Label Photographs



This device complies with part 15 of the FCC Rules. Operation in subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.