

DECLARATION OF CONFORMITY

We; Samsung Techwin Co., Ltd.

DECLARE UNDER OUR SOLE RESPONSIBILITY THAT THE PRODUCT;

Report No: KES-E1-15T0052

**Type of
equipment:** NETWORK CAMERA

Model Name: SNB-L6011P

Applicant: Samsung Techwin Co., Ltd.

Address: 84, Jeongdong-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-do, Korea

Manufacturer : TIANJIN SAMSUNG TECHWIN
OPTO-ELECTRONIC CO.,LTD

Address: No.11 Weiliu Road. Micro-Electronic
Industrial Park Jingang Road Tianjin
300385, China

Test standards : AS/NZS CISPR22:2009+A1:2010

Classification: C-Tick

The above equipment was tested by EMC compliance Testing Laboratory for with the requirements of C-tick Rules and Regulations. The results of testing in this report apply to the product / system which was tested only.

Feb. 26. 2015
(Date of issue)

(Name and signature of authorized person)



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AS/NZS EMI Test Report

Test Report No. : KES-E1-15T0052
Date of Issue : 02. 26. 2015
Description of Product : NETWORK CAMERA
Model No. : SNB-6011P
Variant Model : -
Applicant : Samsung Techwin Co., Ltd.
Address : 84, Jeongdong-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-do, Korea
Manufacturer : TIANJIN SAMSUNG TECHWIN OPTO-ELECTRONIC CO., LTD
Address : No.11 Weiliu Road. Micro-Electronic Industrial Park Jingang Road Tianjin 300385, China
Applicable Regulation : AS/NZS CISPR22:2009 + A1:2010

Date of Receipt : 02. 05. 2015
Test Date : 02. 10. 2015 - 02. 11. 2015

Tested by:

Dae Jung, Choi
Test Engineer

Reviewed by:

Dong Hun, Jang
Technical Manager

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Revision history

Revision	Date of issue	Test report No.	Description
-	02. 26. 2015	KES-E1-15T0052	Initial

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1. General Information

1.1 Introduction

The EMI Test Report for CE Declaration of Conformity is prepared on behalf of named applicant in accordance with the EMC Directive(2004/108/EC) of the European Economic Community. The test results reported in this document relate only to the item that was tested.

All radiated emission, conducted emission measurements required by the EMC Directive were performed manually at KES Co., Ltd. (here in after called KES), 473-29, Gayeo-ro, Yeoju-si, Gyeonggi-do, Korea

The radiated emission measurements performed on 10 meter, Open Area Test Site, test range maintained by KES. Complete ANSI63.4;2009 description and site attenuation measurement data records are maintained at the test facility and have been placed on file with the Federal Communications Commission.

The KES EMC test facilities in and Yeoju-si are designated testing laboratory according to ISO/IEC 17025 by Radio Research Agency(RRA), Korea Communication Commission.



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1.2 Product Description for Equipment Under Test (EUT)

Samsung Techwin Co., Ltd., NETWORK CAMERA, Model No: SNB-6011P or the "E.U.T". as referred to in this report is base model.

Main Specifications of EUT are:

Video	
Imaging Device	1/2.8" PS 2.38M CMOS
Total Pixels	1952(H) x 1116(V)
Effective Pixels	1944(H) x 1104(V)
Scanning System	Progressive
Min. Illumination(50IRE)	Color : 0.3Lux (1/30sec, F2.0, 50IRE)
S / N Ratio	-
Video Out	CVBS : 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P), for installation - DIP connector type
Lens	
Focal Length (Zoom Ratio)	2.4mm
Max. Aperture Ratio	2
Angular Field of View	H : 134.3° / V : 70.9°
Min. Object Distance	0.3m
Focus Control	-
Lens Type	-
Mount Type	RJ-12 connected with main unit
Operational	
Camera Title	Off / On (Displayed up to 45 characters)
Day & Night	Auto(S/W) / Color / B/W / Schedule
Backlight Compensation	Off / BLC / WDR
Wide Dynamic Range	120dB
Contrast Enhancement	SSDR (Samsung Super Dynamic Range)
Digital Noise Reduction	SSNR3 (2D + 3D noise filter)(Off/On)
Digital Image Stabilization	Off / On
Defog	Off / Auto / Manual
Motion Detection	Off / On (4ea 4 Points Polygonal zones)
Privacy Masking	Off / On (32 Zones with 4 Points of Polygonal)
Gain Control	Off / Low / Middle / High
White Balance	ATW / AWC / Manual / Indoor / Outdoor
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (2 ~ 1/12,000sec)
Digital PTZ	-
Flip / Mirror	Off / On
Intelligent Video Analytics	Tampering, Virtual Line, Enter/Exit, Appear / Disappear
Alarm I/O	Input 1ea / Output 1ea
Serial Interface	-
Alarm Triggers	Motion detection, Alarm Input, Video Analytics, Network Disconnection
Alarm events	File upload via FTP and E-Mail Notification via E-Mail local storage(SD/SDHC/SDXC) or NAS recording at Event (Alarm Triggers) External output

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Network	
Ethernet	RJ-45 (10/100BASE-T)
Video Compression Format	H.264 (MPEG-4 Part 10/AVC), Motion JPEG
Resolution	1920x1080 / 1280x1024 / 1280x960 / 1280x720 / 1024x768 / 800x600 / 800x450 / 640x480 / 640x360 / 320x240 / 320x180
Max. Framerate	H.264 : Max. 30fps at all resolutions MJPEG : 1920 x 1080, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768 : Max. 15fps 800 x 600, 800 x 450, 640 x 480, 640 x 360, 320 x 240, 320 x 180 : Max. 30fps
Smart Codec	-
Video Quality Adjustment	H.264 : Compression Level, Target Bitrate Level Control MJPEG : Quality Level Control
Bitrate Control Method	H.264 : CBR or VBR Motion JPEG : VBR
Streaming Capability	Multiple Streaming (Up to 10 Profiles)
IP	IPv4, IPv6
Protocol	TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour
Security	HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access Log 802.1x Authentication
Streaming Method	Unicast / Multicast
Max. User Access	15 users at Unicast Mode
Memory Slot	Micro SD/SDHC/SDXC - motion Images recorded in the SD/SDHC/SDXC memory card can be downloaded.
Application Programming Interface	ONVIF Profile S HTTP API(SUNAPI) 2.0 SVNP 1.2
Webpage Language	English, French, German, Spanish, Italian, Chinese, Korean, Russian, Japanese, Swedish, Danish, Portuguese, Turkish, Polish, Czech, Rumanian, Serbian, Dutch, Croatia, Hungary, Greek, Finnish, Norwegian
Web Viewer	- Supported OS : Windows XP / VISTA / 7 / 8 / 8.1, MAC OS X 10.7 - Supported Browser : Microsoft Internet Explorer (Ver. 11 ~ 8) Mozilla Firefox (Ver. 19 ~9) ※ Windows Only Google Chrome (Ver. 25 ~ 15) ※ Windows Only Apple Safari (Ver. 6.0.2(Mac OS X 10.8, 10.7only), 5.1.7) ※ Mac OS X only
Central Management Software	SmartViewer, SSM

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Environmental	
Operating Temperature / Humidity	-10°C ~ +55°C(+14°F ~ +131°F) / Less than 90% RH
Storage Temperature / Humidity	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH
Electrical	
Input Voltage / Current	DC12V, PoE(IEEE802.3af)
Power Consumption	PoE : 7.5W DC12V : 6.5W
Mechanical	
Color / Material	Camera Unit : Black / Plastic Main Unit : Ivory / Plastic
Dimension (WxHxD)	Camera Header : Φ24×50mm Main unit : W121.2xH28xD76mm
Weight	Camera Header (Include Cable) : 315g Main unit : 290g

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1.3 Equipment Under Test

Description	Model Number	Serial Number	Manufacturer	Remarks
NETWORK CAMERA	SNB-6011P	-	TIANJIN SAMSUNG TECHWIN OPTO-ELECTRONIC CO., LTD	E.U.T

1.4 Support Equipments

Description	Model Number	Serial Number	Manufacturer	Remarks
Switching Adapter 1	ADS-30SI-12-2 12022GN	-	SHENZHEN HONOR ELECTRONIC CO., LTD	-
POE Switch	PD3001GC/AC	RD9356082016964200	Power Dsine	-
Notebook	RT3290LE	5CD242B043	HP	-
Switching Adapter 2	Series PPP009L-E	WCNWVOA3U3G31S	LITE-ON TECHNOLOGY (CHANGZHOU) Co., Ltd.	-
Monitor	SMT-2232	C95V67VF900015Y	Weihai Daewoo Electronics Co., Ltd.	-
JIG	-	-	-	-
Micro SD Card	-	-	-	-

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1.5 External I/O Cabling

- 12 V (dc)

Start		END		Cable Spec.	
Description	I/O Port	Description	I/O Port	Length	Shield
NETWORK CAMERA	Power	Switching Adapter 1	Power	1.2	Unshielded
	Camera	CAMERA (EUT)	Camera	8.0	Unshielded
	BNC	Monitor	BNC	5.0	Unshielded
	Alarm	JIG	Alarm	3.5	Unshielded
	Micro SD	Micro SD Card	Micro SD	-	-
	LAN(RJ-45)	Notebook	LAN(RJ-45)	4.0	Unshielded

- PoE

Start		END		Cable Spec.	
Description	I/O Port	Description	I/O Port	Length	Shield
NETWORK CAMERA	Camera	CAMERA (EUT)	Camera	8.0	Unshielded
	BNC	Monitor	BNC	5.0	Unshielded
	Alarm	JIG	Alarm	3.5	Unshielded
	Micro SD	Micro SD Card	Micro SD	-	-
	LAN(PoE)	POE Switch	LAN(PoE)	5.0	Unshielded
	LAN(RJ-45)	Notebook	LAN(RJ-45)	4.0	Unshielded

1.6 Special Accessories

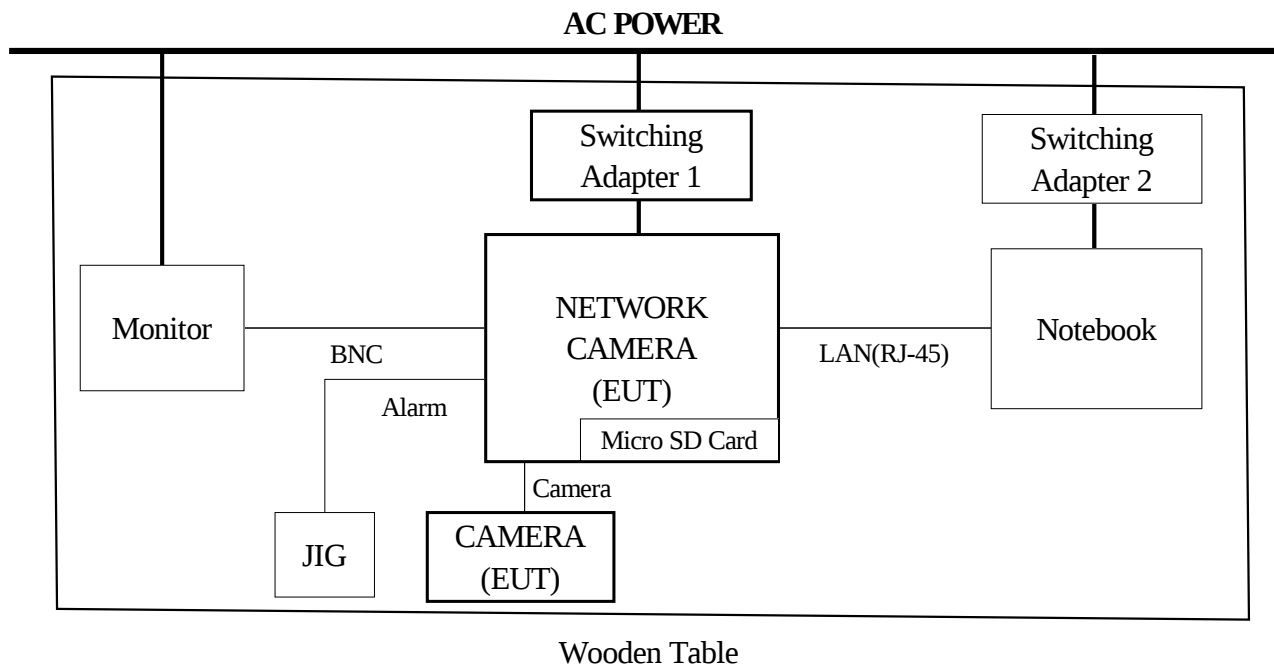
As shown in section 1.8, all interface cables used for compliance testing are shielded as normally supplied or by use respective component manufacturers.

1.7 EUT Modifications

No modifications were made to the EUT in order to achieve and maintain compliance to the standards described in this report.

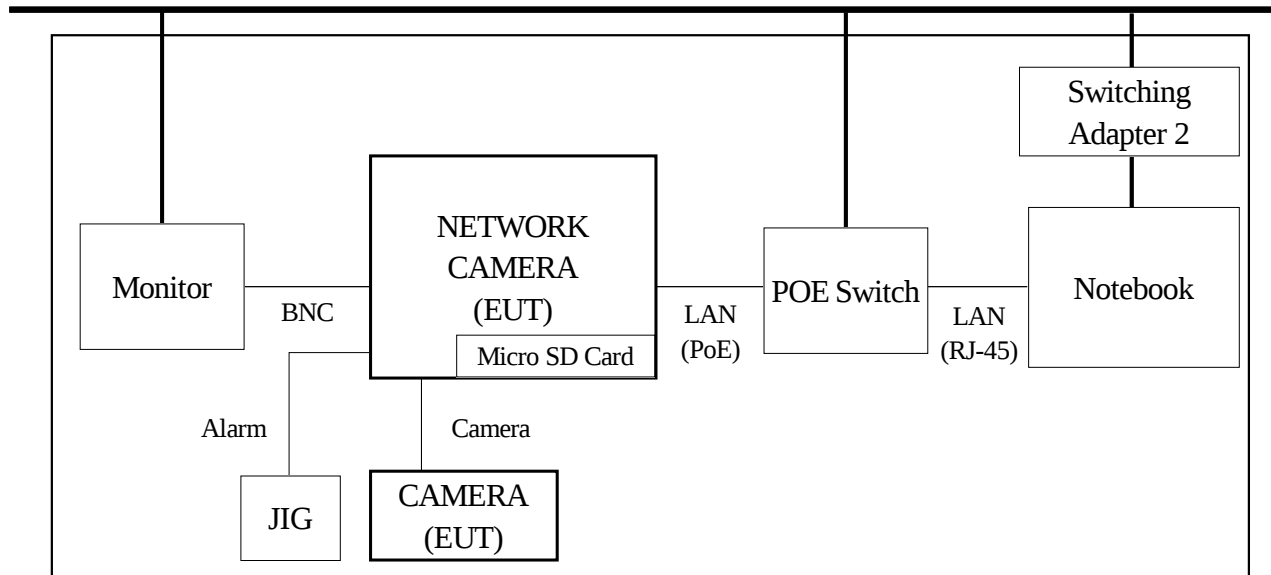
1.8 Configuration of Test System

- 12 V (dc)



- PoE

AC POWER



Wooden Table

1.9 Operating condition

- Ping test
- web view monitoring
- Alarm test
- Monitor monitoring

1.10 Test standards and results

Specifications	Description	Test Point	Remark
CISPR22, Class A	Conducted Emission	AC Input Port	N/A(1)
CISPR22, Class A	Conducted Emission	Telecommunication port	C
CISPR22, Class A	Radiated Emission	Enclosure	C

Note : C=Complies N/C=Not Complies N/T=Not Tested N/A=Not Applicable

N/A (1) : This device is operate by 12 V (dc) and PoE power. Test is not applicable.

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2. Test Performed

2.1 Conducted Emission Measurements

2.1.1 Test Description

The power line conducted emission measurements were performed in a shielded enclosure. The EUT was placed on a wooden table, 80 centimeters height above the floor. Power was fed to the EUT through a 50 ohm/ 50 micro henry Line Impedance Stabilization Network (LISN). The ground plane that was electrically bonded to the shield room ground system and all power lines entering the shield room were filtered.

2.1.2 Test Equipments

Description	Manufacturer	Model Number	Serial Number	Cal. Due
EMI Receiver/Signal Analyzer	Narda S.T.S / PMM	PMM 9010F	020WW31006	04. 04. 2015
LISN	R&S	ENV216	101137	02. 10. 2016
LISN	EMCO	3810/2	2228	-
8-Wire ISN CAT3	Schwarzbeck Mess	CAT3 8158	8158-0019	04.08.2015
8-Wire ISN CAT5	Schwarzbeck Mess	NTFM 8158	8158-0030	05.21.2015
8-Wire ISN CAT6	Schwarzbeck Mess	NTFM 8158	8158-0029	08.15.2015
Electro wave Shieldroom	SEMITEC	-	-	-

2.1.3 Test Environments

Ambient Temperatures : see the data
Relative Humidity : see the data

2.1.4 Test Limits

Frequency (MHz)	CISPR Publication 22			
	Class B (dB μ V)		Class A (dB μ V)	
	QP	AV	QP	AV
0,15 to 0,5	66 to 56	56 to 46	79	66
0,5 to 5	56	46	73	60
5 to 30	60	50	73	60

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- Telecommunication

Frequency (MHz)	CISPR 22(Voltage)			
	Class B (dB μ V)		Class A (dB μ V)	
	Quasi-peak	Average	Quasi-peak	Average
0,15 to 0,5	84 to 74	74 to 64	97 to 87	84 to 74
0,5 to 30	74	64	87	74

Frequency (MHz)	CISPR 22(Current)			
	Class B (dB μ A)		Class A (dB μ A)	
	Quasi-peak	Average	Quasi-peak	Average
0,15 to 0,5	40 to 30	30 to 20	53 to 43	40 to 30
0,5 to 30	30	20	43	30

2.1.5 Test Procedure

The conducted emission levels were measured on each current-carrying line with the spectrum analyzer operating in the CISPR quasi-peak mode (or peak mode if applicable). The analyzer's 6 dB bandwidth was set to 9 kHz. The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. If the conducted emission exceed the average limit with the instrument set to the quasi-peak mode, the measurements are made in the average mode. The emission spectrum was scanned from 150 kHz to 30 MHz. The highest emission amplitudes relative to the appropriate limits were measured and have been recorded. Quasi-peak readings are distinguished with a "QP".

The conducted emission test was performed with the EUT exercise program loaded, and the emissions were scanned between 150 kHz to 30 MHz on the HOT side and NEUTRAL side, herein referred to as H and N, respectively.

2.1.6 Test Results

According to the data in section 2.1.7, the EUT complied with the CISPR22 standards.



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2.1.7 Test Data

Temperature: °C Humidity: R.H. Test Date: Tested by:

Polarization: HOT

N/A

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Polarization: NEUTRAL

N/A



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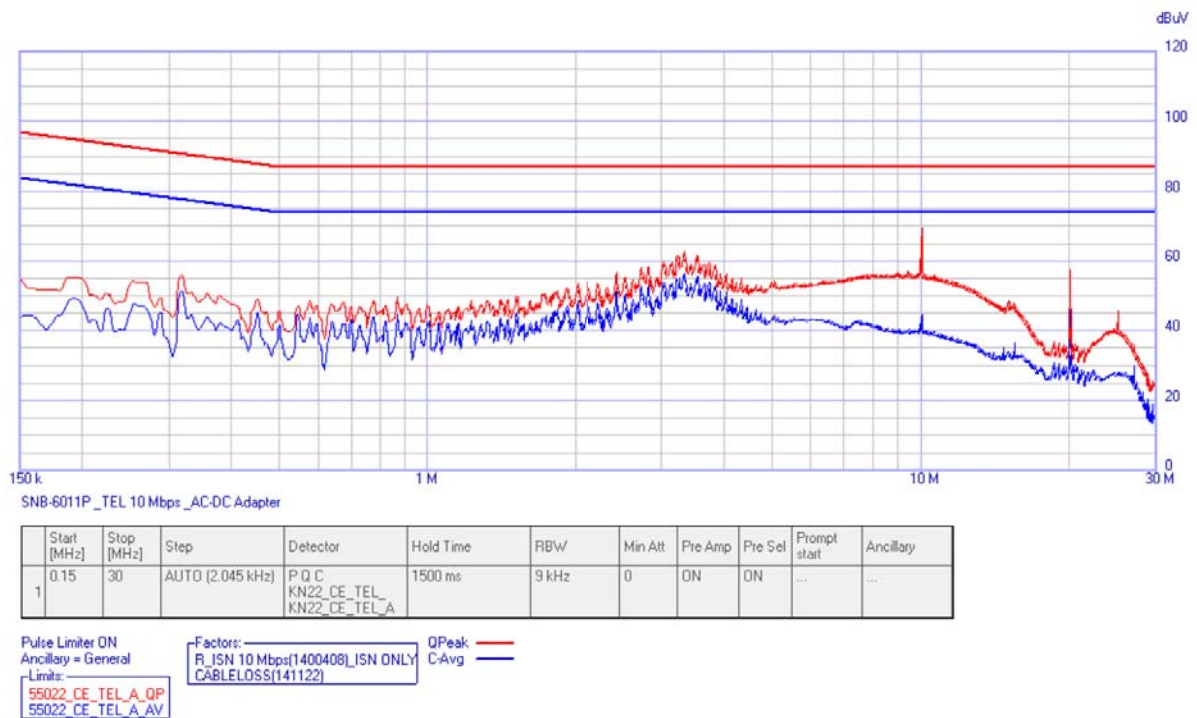
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- Telecommunication - 12 V (dc)

Temperature: 20.2 °C Humidity: 36.1 % R.H. Test Date: 02. 10. 2015 Tested by: Dae Jung, Choi

[10 Mbps]



Frequency [MHz]	Q-Peak [dBμV]	Limit [dBμV]	Margin [dB]	C-Avg [dBμV]	Limit [dBμV]	Margin [dB]	Factor (ISN) [dB]	Factor (Cable Loss) [dB]
0.150	55.060	97.000	-41.940	43.830	84.000	-40.170	10.290	0.020
0.189	55.360	95.090	-39.730	48.830	82.090	-33.260	10.210	0.030
0.252	54.280	92.680	-38.400	47.240	79.680	-32.440	10.160	0.030
0.318	55.900	90.770	-34.870	51.250	77.770	-26.520	10.110	0.030
0.453	48.870	87.830	-38.960	44.960	74.830	-29.870	10.050	0.030
2.804	58.300	87.000	-28.700	52.740	74.000	-21.260	9.840	0.100
3.019	59.970	87.000	-27.030	53.970	74.000	-20.030	9.840	0.110
3.320	62.550	87.000	-24.450	56.270	74.000	-17.730	9.840	0.120
10.046	69.390	87.000	-17.610	44.720	74.000	-29.280	9.810	0.280
20.005	57.530	87.000	-29.470	46.090	74.000	-27.910	9.860	0.200

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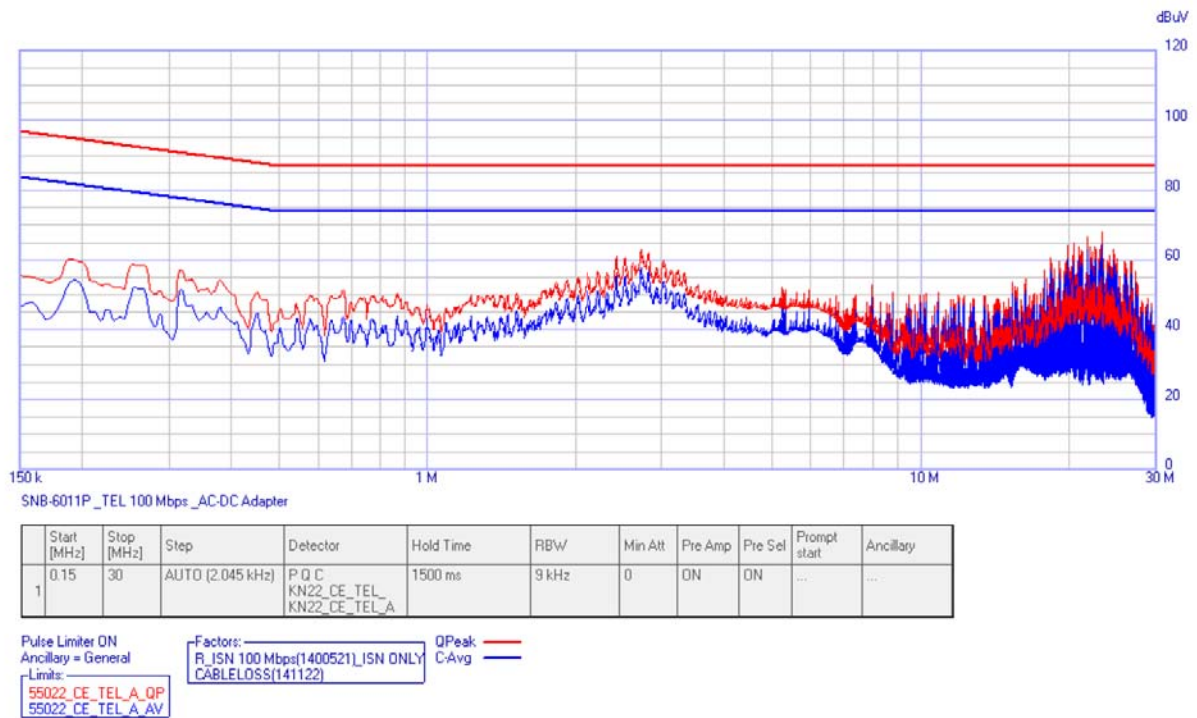


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[100 Mbps]



Frequency [MHz]	Q-Peak [dBμV]	Limit [dBμV]	Margin [dB]	C-Avg [dBμV]	Limit [dBμV]	Margin [dB]	Factor (ISN) [dB]	Factor (Cable Loss) [dB]
0.150	55.570	97.000	-41.430	46.310	84.000	-37.690	9.790	0.020
0.156	55.180	96.670	-41.490	47.910	83.670	-35.760	9.780	0.020
0.189	60.280	95.090	-34.810	53.670	82.090	-28.420	9.740	0.030
0.252	58.770	92.680	-33.910	51.510	79.680	-28.170	9.690	0.030
0.318	57.070	90.770	-33.700	51.300	77.770	-26.470	9.650	0.030
19.792	63.950	87.000	-23.050	60.300	74.000	-13.700	9.750	0.210
20.324	64.840	87.000	-22.160	61.140	74.000	-12.860	9.750	0.200
21.774	66.460	87.000	-20.540	62.940	74.000	-11.060	9.590	0.210
22.005	63.760	87.000	-23.240	60.170	74.000	-13.830	9.560	0.210
23.203	67.850	87.000	-19.150	64.300	74.000	-9.700	9.420	0.240

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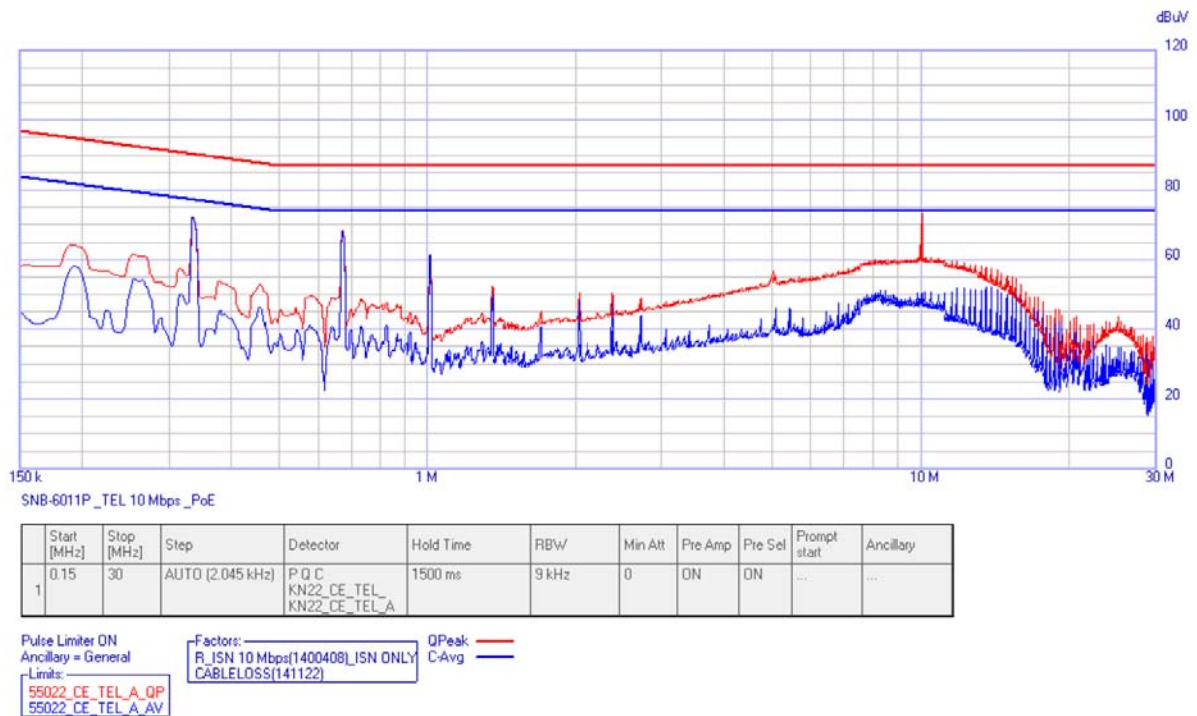
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- PoE

Temperature: 20.2 °C Humidity: 36.1 % R.H. Test Date: 02. 10. 2015 Tested by: Dae Jung, Choi

[10 Mbps]

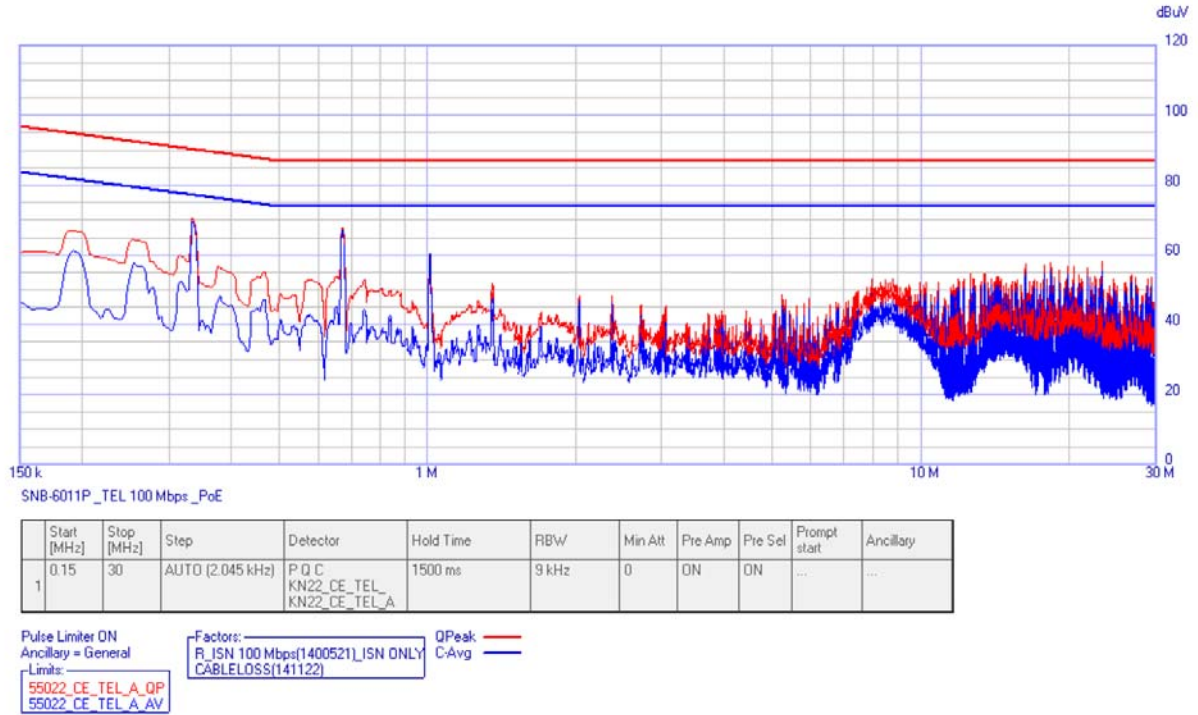


Frequency [MHz]	Q-Peak [dBμV]	Limit [dBμV]	Margin [dB]	C-Avg [dBμV]	Limit [dBμV]	Margin [dB]	Factor (ISN) [dB]	Factor (Cable Loss) [dB]
0.152	58.550	96.890	-38.340	44.020	83.890	-39.870	10.290	0.020
0.154	58.510	96.780	-38.270	43.070	83.780	-40.710	10.280	0.020
0.191	63.990	95.000	-31.010	58.180	82.000	-23.820	10.210	0.030
0.252	61.570	92.680	-31.110	54.000	79.680	-25.680	10.160	0.030
0.336	72.350	90.300	-17.950	72.070	77.300	-5.230	10.100	0.030
0.674	68.460	87.000	-18.540	67.910	74.000	-6.090	9.730	0.040
1.011	61.430	87.000	-25.570	61.180	74.000	-12.820	9.940	0.040
5.019	56.630	87.000	-30.370	39.950	74.000	-34.050	9.850	0.180
9.888	60.700	87.000	-26.300	48.530	74.000	-25.470	9.810	0.280
10.046	73.360	87.000	-13.640	50.360	74.000	-23.640	9.810	0.280

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[100 Mbps]



Frequency [MHz]	Q-Peak [dBμV]	Limit [dBμV]	Margin [dB]	C-Avg [dBμV]	Limit [dBμV]	Margin [dB]	Factor (ISN) [dB]	Factor (Cable Loss) [dB]
0.152	61.090	96.890	-35.800	46.290	83.890	-37.600	9.790	0.020
0.189	67.050	95.090	-28.040	60.190	82.090	-21.900	9.740	0.030
0.252	64.450	92.680	-28.230	56.880	79.680	-22.800	9.690	0.030
0.336	70.500	90.300	-19.800	69.530	77.300	-7.770	9.640	0.030
0.674	67.800	87.000	-19.200	66.930	74.000	-7.070	9.540	0.040
1.011	60.400	87.000	-26.600	60.140	74.000	-13.860	9.480	0.040
16.269	57.320	87.000	-29.680	54.890	74.000	-19.110	9.250	0.270
18.281	57.900	87.000	-29.100	55.480	74.000	-18.520	9.480	0.230
23.203	57.950	87.000	-29.050	55.250	74.000	-18.750	9.420	0.240

2.2 Radiated Emission Measurements

2.2.1 Test Description

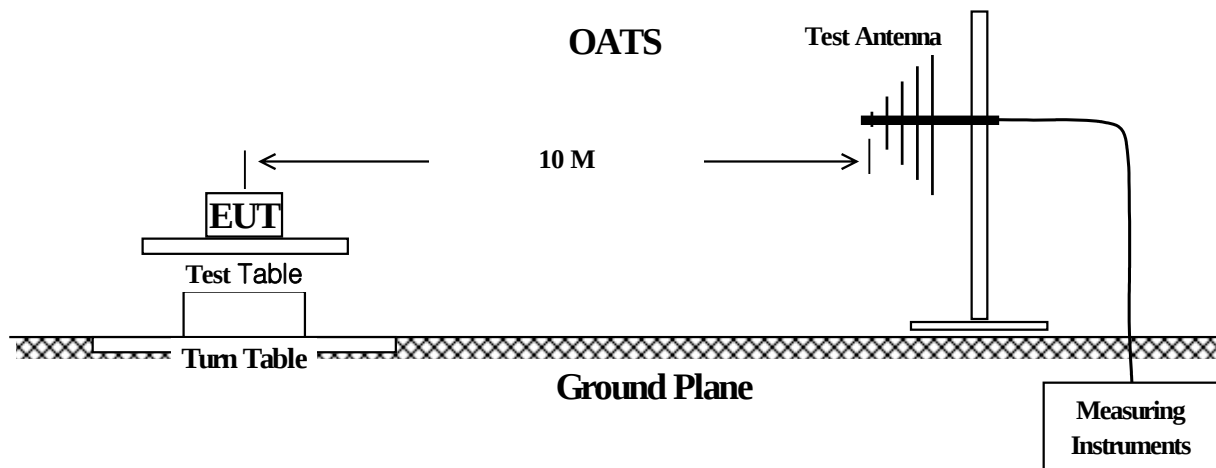
The radiated emissions measurements were performed on the ten-meter, open-field test site. The EUT was placed on a nonconductive turntable approximately 0.8 meters above the ground plane.

The frequency spectrum from 30 MHz to 1 000 MHz and 1 000 MHz to 6 000 MHz was scanned and maximum emission levels at each frequency recorded.

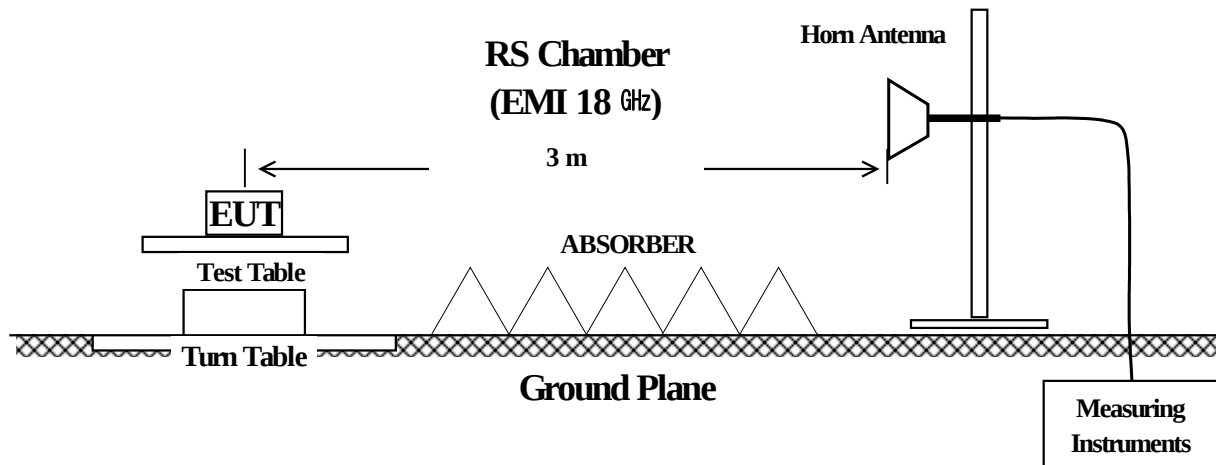
The system was rotated 360°, and the antenna was varied in the height between 1.0 and 4.0 meters in order to determine the maximum emission levels. This procedure was performed for horizontal and vertical polarization of the receiving antenna.

- above 1 GHz : Antenna height is fixed to 1.0 m

* Below 1 GHz



* Above 1 GHz



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2.2.2 Test Equipments

Description	Manufacturer	Model Number	Serial Number	Cal. Due
EMI TEST Receiver	R & S	ESVS10	826008/014	04.09.2014
Trilog-Broadband Antenna	SCHWARZBECK	VULB 9168	9168-385	05.09.2015
EMC Analyzer	Agilent	E7405A	US41160306	08.16.2014
PREAMPLIFIER	8449B	H.P	3008A00538	07.23.2015
DOUBLE RIDGED HORN ANTENNA	A.H. SYSTEMS, INC	SAS-571	781	05.13.2015
RS Chamber (EMI 18GHz)	SEMITEC	-	-	-

2.2.3 Test Environments

Temperatures : see the data
Humidity : see the data

2.2.4 Test Limits*** Below 1 GHz**

Frequency (MHz)	CISPR Publication 22	
	Class B	Class A
	Quasi-peak (dB μ V/m)	Quasi-peak (dB μ V/m)
0,15 to 30	Under consideration	Under consideration
30 to 230	30	40
230 to 1 000	37	47

*** Above 1 GHz**

Frequency (MHz)	CISPR Publication 22			
	Class B @ 3 m (dB μ V/m)		Class A @ 3 m (dB μ V/m)	
	PK	AV	PK	AV
1 000 to 3 000	70	50	76	56
3 000 to 6 000	74	54	80	60

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2.2.5 Test Procedure

Before final measurements of radiated emission were made on the OATS, the EUT was scanned in semi-anechoic chamber in order to determine its emission spectrum signature. The physical arrangement of the test system and associated cabling was varied in order to determine the effect on the EUT's emission in amplitude, direction and frequency. This process was repeated during final radiated emission measurements on the OATS range, at each frequency, in order to ensure that maximum emissions amplitudes were attained.

The radiated emission test was performed with EUT exercise program loaded, and the emissions were scanned between 30 MHz to 1 000 MHz and 1 000 MHz to 6 000 MHz using the spectrum analyzer. The spectrum analyzer's 6 dB bandwidth was set to 120 kHz(1 MHz), and the analyzer was operated in the CISPR quasi-peak (Peak) detection mode.

Measurements were taken using both HORIZONTAL and VERTICAL antenna polarization, herein referred to as H and V, respectively.

3.1.1 Field Strength Calculation

The Field Strength (FS) is calculated by adding the Antenna Factor (AF) and Cable Factor (CF) and Amplifier Gain(AG) from the Measured Reading (MR). The basic equation with a sample calculation is as follows:

$$* \text{ Below 1 GHz : FS(dB}\mu\text{V/m)} = \text{MR(dB}\mu\text{V)} + [\text{AF(dB/m)} + \text{CF(dB)}]$$

$$* \text{ Above 1 GHz : FS(dB}\mu\text{V/m)} = \text{MR(dB}\mu\text{V)} + [\text{AF(dB/m)} + \text{CF(dB)}] - \text{AG}$$

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2.2.6 Test Results

According to the data in section 3.2.7, the EUT complied with the CISPR22 standards.

2.2.7 Test Data*** Below 1 GHz****- 12 V (dc)**

Temperature: 9.0 °C Humidity: 39.0 % R.H. Test Date: 02. 11. 2015 Tested by: Dae Jung, Choi

Frequency (MHz)	Amplitude (dB μ V/m)	Antenna		Correction Factor		Corrected Amplitude (dB μ V/m)	Applicable Limit (dB μ V/m)	Margin (dB)
		Polar. (H/V)	Height (m)	Ant. (dB)	Cable (dB)			
48.310	18.300	V	1.000	13.610	1.580	33.490	40.000	6.510
51.273	19.000	V	1.000	13.580	1.640	34.220	40.000	5.780
445.612	15.800	H	2.800	16.570	5.490	37.860	47.000	9.140
519.735	15.300	V	3.580	18.120	6.040	39.460	47.000	7.540
519.741	14.700	H	1.100	18.120	6.040	38.860	47.000	8.140
666.159	11.300	V	1.000	20.420	7.050	38.770	47.000	8.230
666.173	11.500	H	3.250	20.420	7.050	38.970	40.000	8.030

- PoE

Temperature: 9.0 °C Humidity: 39.0 % R.H. Test Date: 02. 11. 2015 Tested by: Dae Jung, Choi

Frequency (MHz)	Amplitude (dB μ V/m)	Antenna		Correction Factor		Corrected Amplitude (dB μ V/m)	Applicable Limit (dB μ V/m)	Margin (dB)
		Polar. (H/V)	Height (m)	Ant. (dB)	Cable (dB)			
48.318	20.500	V	1.000	13.610	1.580	35.690	40.000	4.310
51.281	20.300	V	1.000	13.570	1.640	35.510	40.000	4.490
445.623	16.100	H	2.650	16.570	5.490	38.160	47.000	8.840
445.626	15.400	V	1.000	16.570	5.490	37.460	47.000	9.540
519.741	15.700	H	3.200	18.120	6.040	39.860	47.000	7.140
519.745	16.300	V	1.000	18.120	6.040	40.460	47.000	6.540
668.198	12.100	H	1.650	20.440	7.060	39.600	47.000	7.400

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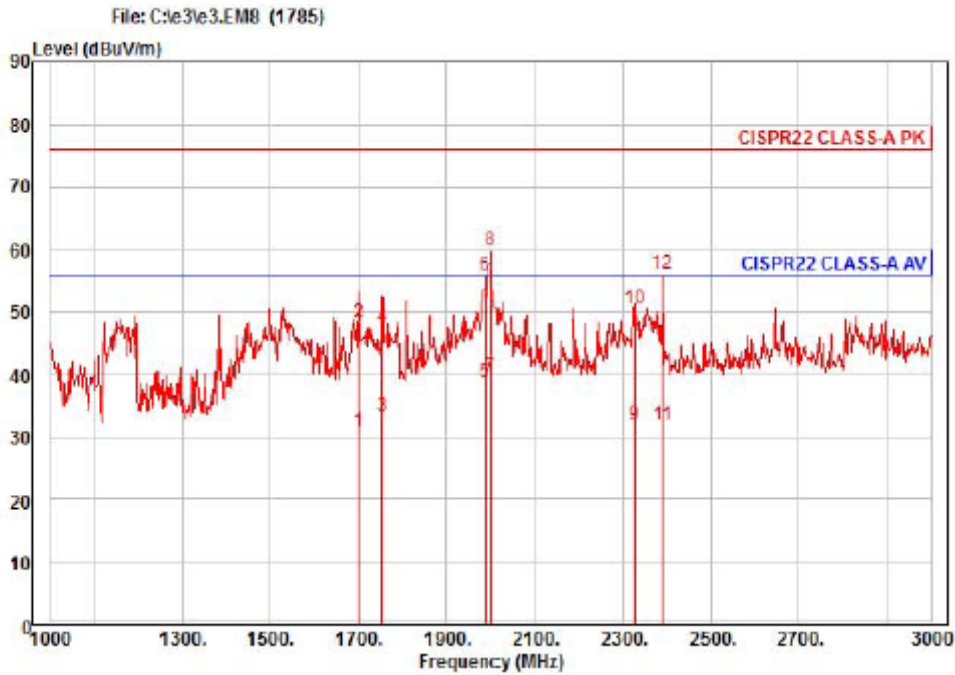
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* Above 1 GHz - 12 V (dc)

Temperature: 22.0 °C Humidity: 37.6 % R.H. Test Date: 02. 11. 2015 Tested by: Dae Jung, Choi



Site : chamber
Condition: CISPR22 CLASS-A PK 3m HORN ANT (2014.03.10) horizontal
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project : NETWORK CAMERA
EUT : SNB-6011P
Mode : 12 V(dc)
Memo : (1 - 3) GHz

	Freq	Read	Ant	Cable	Preamp	TPos	Limit	Over		
	MHz	Level	Factor	Loss	Factor		Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	1702.00	32.45	26.30	7.14	35.03	30	56.00	-25.14	horizontal	Average
2	1702.00	49.99	26.30	7.14	35.03	30	76.00	-27.60	horizontal	Peak
3	1754.00	34.50	26.63	7.26	34.94	28	56.00	-22.55	horizontal	Average
4	1754.00	48.70	26.63	7.26	34.94	28	76.00	-28.35	horizontal	Peak
5	1988.00	37.38	28.11	7.83	34.55	35	56.00	-17.23	horizontal	Average
6	1988.00	54.46	28.11	7.83	34.55	35	76.00	-20.15	horizontal	Peak
7 av	2002.00	38.18	28.19	7.86	34.53	125	56.00	-16.30	horizontal	Average
8 pp	2002.00	58.31	28.19	7.86	34.53	125	76.00	-16.17	horizontal	Peak
9	2326.00	28.71	28.89	8.54	34.31	213	56.00	-24.17	horizontal	Average
10	2326.00	47.48	28.89	8.54	34.31	213	76.00	-25.40	horizontal	Peak
11	2390.00	28.46	29.02	8.68	34.26	43	56.00	-24.10	horizontal	Average
12	2390.00	52.72	29.02	8.68	34.26	43	76.00	-19.84	horizontal	Peak

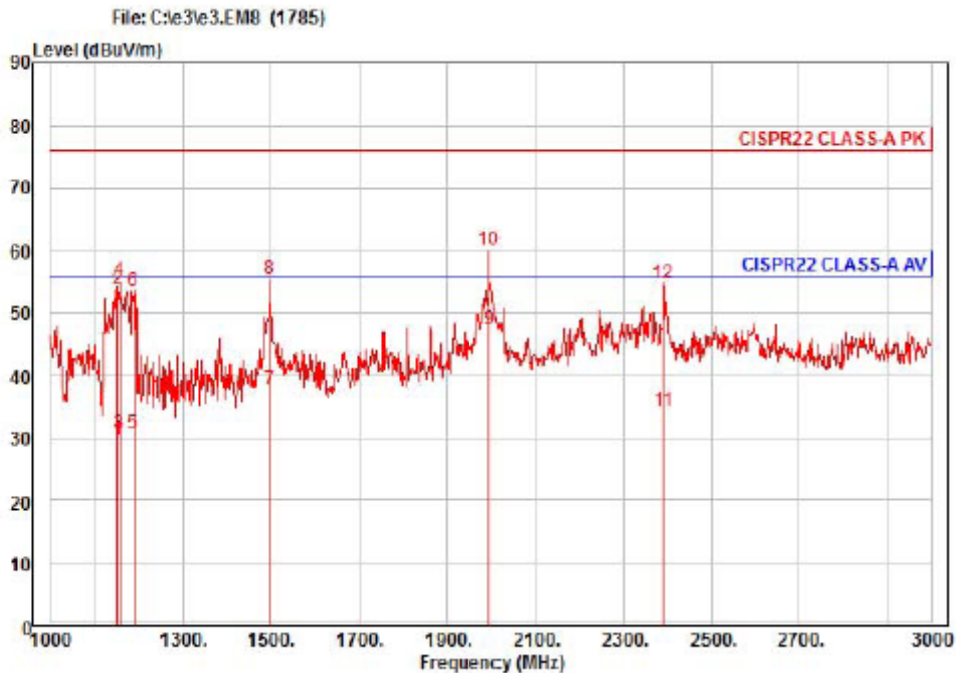
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Site : chamber
Condition: CISPR22 CLASS-A PK 3m HORN ANT (2014.03.10) vertical
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project : NETWORK CAMERA
EUT : SNB-6011P
Mode : 12 V(dc)
Memo : (1 - 3) GHz

	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	1152.00	36.27	23.61	5.81	35.95	20	56.00	-26.26	vertical	Average
2	1152.00	60.15	23.61	5.81	35.95	20	76.00	-22.38	vertical	Peak
3	1158.00	37.04	23.63	5.82	35.94	10	56.00	-25.45	vertical	Average
4	1158.00	61.71	23.63	5.82	35.94	10	76.00	-20.78	vertical	Peak
5	1188.00	36.88	23.75	5.89	35.89	8	56.00	-25.37	vertical	Average
6	1188.00	59.63	23.75	5.89	35.89	8	76.00	-22.62	vertical	Peak
7	1498.00	41.41	25.01	6.65	35.37	57	56.00	-18.38	vertical	Average
8	1498.00	59.23	25.01	6.65	35.37	57	76.00	-20.48	vertical	Peak
9 pp	1998.00	45.89	28.18	7.86	34.53	245	56.00	-8.60	vertical	Average
10 pk	1998.00	58.60	28.18	7.86	34.53	245	76.00	-15.89	vertical	Peak
11	2390.00	30.91	29.02	8.68	34.26	319	56.00	-21.65	vertical	Average
12	2390.00	51.28	29.02	8.68	34.26	319	76.00	-21.28	vertical	Peak

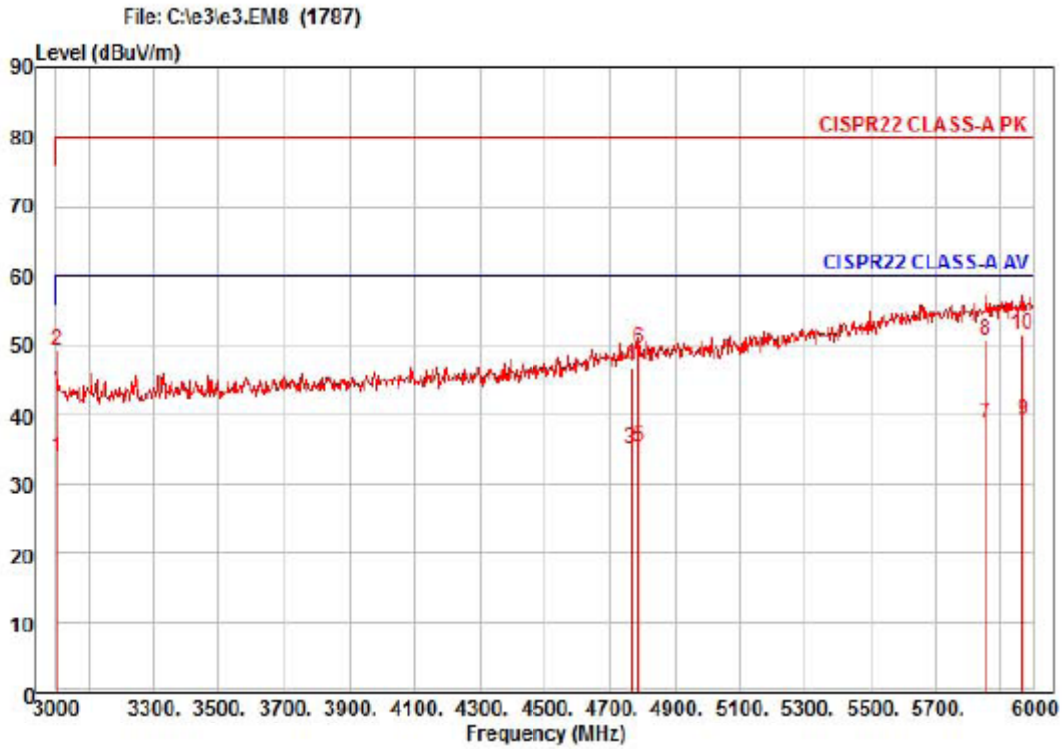
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Site : chamber
Condition: CISPR22 CLASS-A PK 3m HORN ANT (2014.03.10) horizontal
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project : NETWORK CAMERA
EUT : SNB-6011P
Mode : 12 V(dc)
Memo : (3 - 6) GHz

	Read	Ant	Cable	Preamp	TPos	Limit	Over		
Freq	Level	Factor	Loss	Factor		Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	3003.00	27.51	30.25	9.96	33.84	218	60.00	-26.12	horizontal Average
2	3003.00	42.87	30.25	9.96	33.84	218	80.00	-30.76	horizontal Peak
3	4764.00	22.89	32.93	12.78	33.63	69	60.00	-25.03	horizontal Average
4	4764.00	34.83	32.93	12.78	33.63	69	80.00	-33.09	horizontal Peak
5	4788.00	23.15	33.01	12.82	33.58	253	60.00	-24.60	horizontal Average
6	4788.00	37.31	33.01	12.82	33.58	253	80.00	-30.44	horizontal Peak
7	5853.00	20.31	34.82	16.98	33.33	321	60.00	-21.22	horizontal Average
8	5853.00	32.38	34.82	16.98	33.33	321	80.00	-29.15	horizontal Peak
9 pp	5967.00	19.88	35.18	17.49	33.35	191	60.00	-20.80	horizontal Average
10 pk	5967.00	32.28	35.18	17.49	33.35	191	80.00	-28.40	horizontal Peak

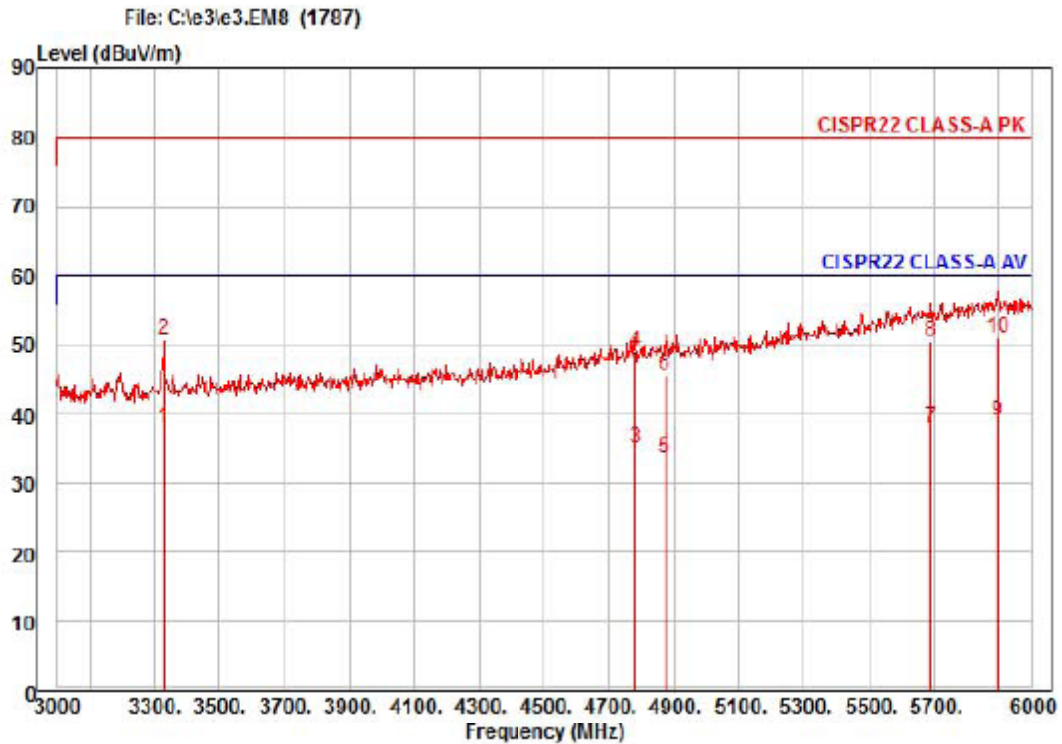
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Site : chamber
Condition: CISPR22 CLASS-A PK 3m HORN ANT (2014.03.10) vertical
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project : NETWORK CAMERA
EUT : SNB-6011P
Mode : 12 V(dc)
Memo : (3 - 6) GHz

	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	3330.00	31.46	30.37	10.47	34.21	194	60.00	-21.91	vertical	Average
2	3330.00	44.07	30.37	10.47	34.21	194	80.00	-29.30	vertical	Peak
3	4782.00	22.97	32.99	12.81	33.59	181	60.00	-24.82	vertical	Average
4	4782.00	36.89	32.99	12.81	33.59	181	80.00	-30.90	vertical	Peak
5	4875.00	20.64	33.31	12.96	33.43	73	60.00	-26.52	vertical	Average
6	4875.00	32.86	33.31	12.96	33.43	73	80.00	-34.30	vertical	Peak
7	5691.00	20.65	34.30	16.26	33.31	312	60.00	-22.10	vertical	Average
8	5691.00	33.33	34.30	16.26	33.31	312	80.00	-29.42	vertical	Peak
9 pp	5898.00	20.09	34.96	17.18	33.34	254	60.00	-21.11	vertical	Average
10 pk	5898.00	32.26	34.96	17.18	33.34	254	80.00	-28.94	vertical	Peak

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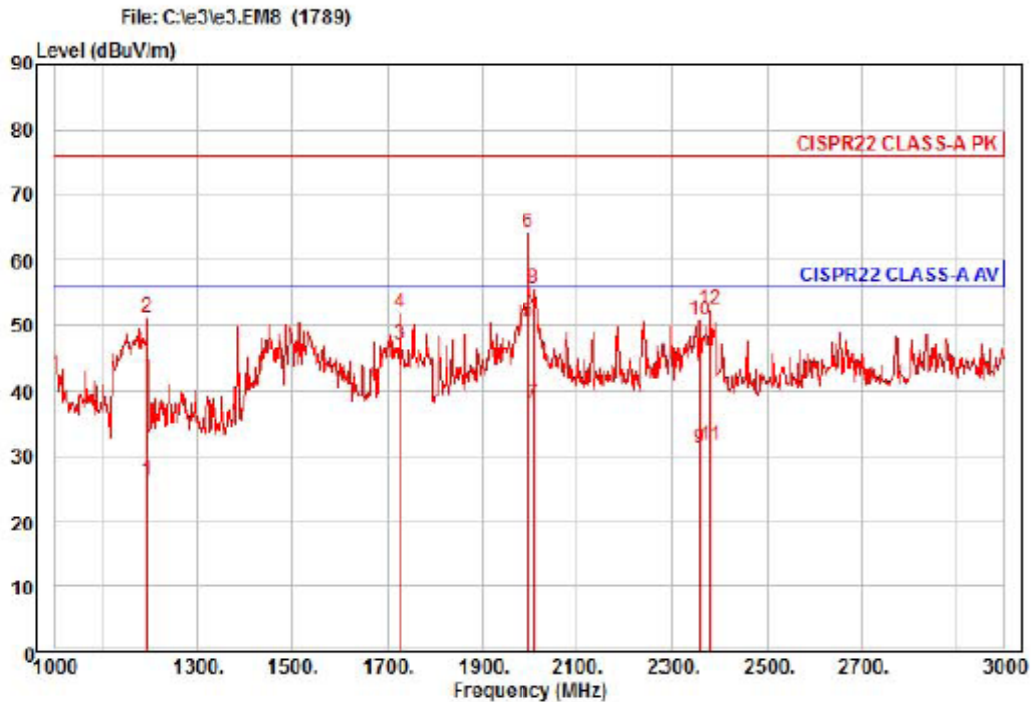
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- PoE

Temperature: 22.0 °C Humidity: 37.6 % R.H. Test Date: 02. 11. 2015 Tested by: Dae Jung, Choi



Site : chamber
Condition: CISPR22 CLASS-A PK 3m HORN ANT (2014.03.10) horizontal
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project : NETWORK CAMERA
EUT : SNB-6011P
Mode : PoE
Memo : (1 - 3) GHz

	Freq	Read	Ant	Cable	Preamp	TPos	Limit	Over		
	MHz	dBuV	Factor	Loss	Factor	deg	Line	Limit	Pol/Phase	Remark
		dBuV	dB/m	dB	dB		dBuV/m	dB		
1	1194.00	32.49	23.78	5.91	35.88	336	56.00	-29.70	horizontal	Average
2	1194.00	57.42	23.78	5.91	35.88	336	76.00	-24.77	horizontal	Peak
3	1728.00	48.45	26.47	7.20	34.98	30	56.00	-8.86	horizontal	Average
4	1728.00	53.30	26.47	7.20	34.98	30	76.00	-24.01	horizontal	Peak
5 pp	1998.00	49.08	28.18	7.86	34.53	225	56.00	-5.41	horizontal	Average
6 pk	1998.00	62.71	28.18	7.86	34.53	225	76.00	-11.78	horizontal	Peak
7	2010.00	36.35	28.21	7.88	34.52	101	56.00	-18.08	horizontal	Average
8	2010.00	54.01	28.21	7.88	34.52	101	76.00	-20.42	horizontal	Peak
9	2358.00	27.85	28.96	8.61	34.28	26	56.00	-24.86	horizontal	Average
10	2358.00	47.43	28.96	8.61	34.28	26	76.00	-25.28	horizontal	Peak
11	2380.00	28.13	29.00	8.66	34.27	43	56.00	-24.48	horizontal	Average
12	2380.00	49.05	29.00	8.66	34.27	43	76.00	-23.56	horizontal	Peak

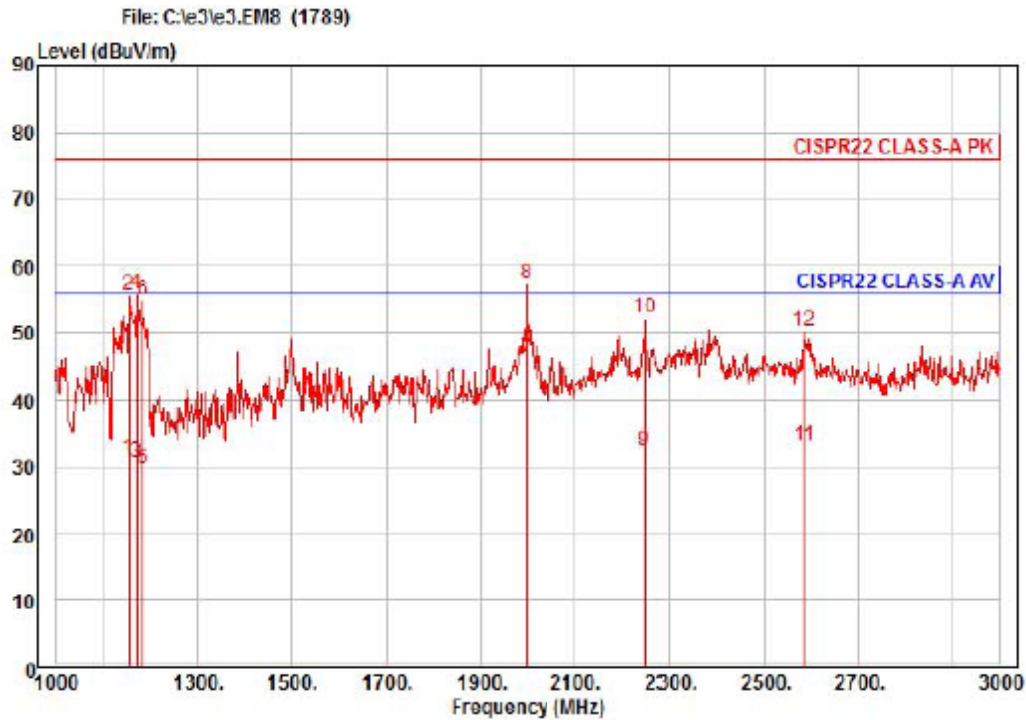
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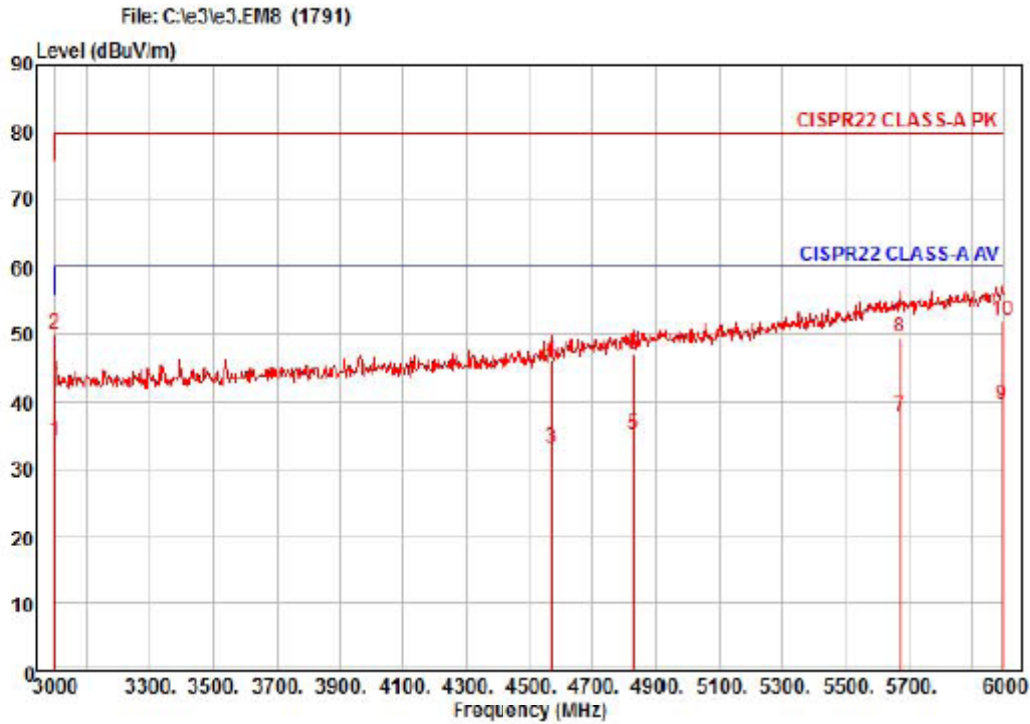
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Site : chamber
Condition: CISPR22 CLASS-A PK 3m HORN ANT (2014.03.10) vertical
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project : NETWORK CAMERA
EUT : SNB-6011P
Mode : PoE
Memo : (1 - 3) GHz

	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	1154.00	37.62	23.62	5.81	35.94	10	56.00	-24.89	vertical	Average
2	1154.00	62.10	23.62	5.81	35.94	10	76.00	-20.41	vertical	Peak
3	1172.00	37.00	23.69	5.86	35.91	13	56.00	-25.36	vertical	Average
4	1172.00	62.39	23.69	5.86	35.91	13	76.00	-19.97	vertical	Peak
5	1184.00	36.00	23.74	5.89	35.89	13	56.00	-26.26	vertical	Average
6	1184.00	61.13	23.74	5.89	35.89	13	76.00	-21.13	vertical	Peak
7 pp	1998.00	44.75	28.18	7.86	34.53	136	56.00	-9.74	vertical	Average
8 pk	1998.00	55.80	28.18	7.86	34.53	136	76.00	-18.69	vertical	Peak
9	2250.00	29.49	28.73	8.39	34.36	324	56.00	-23.75	vertical	Average
10	2250.00	49.57	28.73	8.39	34.36	324	76.00	-23.67	vertical	Peak
11	2586.00	28.80	29.43	9.09	34.13	153	56.00	-22.81	vertical	Average
12	2586.00	45.77	29.43	9.09	34.13	153	76.00	-25.84	vertical	Peak

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Site : chamber
Condition: CISPR22 CLASS-A PK 3m HORN ANT (2014.03.10) horizontal
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project : NETWORK CAMERA
EUT : SNB-6011P
Mode : PoE
Memo : (3 - 6) GHz

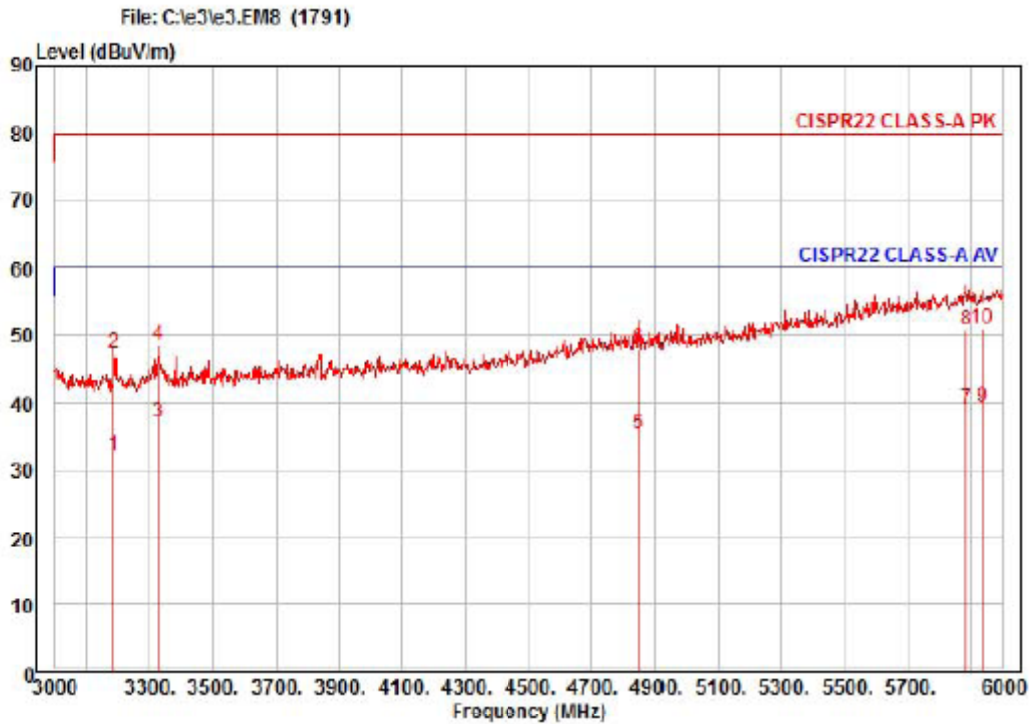
	Freq	Read Level	Ant Factor	Cable Loss	Preamplifier	TPos	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	deg	dBuV/m	dB		
1	3000.00	27.63	30.25	9.96	33.84	220	56.00	-22.00	horizontal	Average
2 pk	3000.00	43.71	30.25	9.96	33.84	220	76.00	-25.92	horizontal	Peak
3	4572.00	22.37	32.28	12.46	33.96	167	60.00	-26.85	horizontal	Average
4	4572.00	35.29	32.28	12.46	33.96	167	80.00	-33.93	horizontal	Peak
5	4833.00	22.48	33.17	12.89	33.50	330	60.00	-24.96	horizontal	Average
6	4833.00	34.45	33.17	12.89	33.50	330	80.00	-32.99	horizontal	Peak
7	5673.00	20.61	34.25	16.18	33.30	159	60.00	-22.26	horizontal	Average
8	5673.00	32.49	34.25	16.18	33.30	159	80.00	-30.38	horizontal	Peak
9 pp	5997.00	19.85	35.27	17.63	33.35	330	60.00	-20.60	horizontal	Average
10	5997.00	32.45	35.27	17.63	33.35	330	80.00	-28.00	horizontal	Peak



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Test report No.:
KES-E1-15T0052
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Site : chamber
Condition: CISPR22 CLASS-A PK 3m HORN ANT (2014.03.10) vertical
: RBW:1000.000kHz VBW:1000.000kHz SWT:Auto
Project : NETWORK CAMERA
EUT : SNB-6011P
Mode : PoE
Memo : (3 - 6) 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	3186.00	25.57	30.32	10.25	34.05	167	60.00	-27.91	vertical	Average
2	3186.00	40.91	30.32	10.25	34.05	167	80.00	-32.57	vertical	Peak
3	3330.00	30.49	30.37	10.47	34.21	167	60.00	-22.88	vertical	Average
4	3330.00	41.87	30.37	10.47	34.21	167	80.00	-31.50	vertical	Peak
5	4854.00	22.62	33.24	12.93	33.47	348	60.00	-24.68	vertical	Average
6	4854.00	35.44	33.24	12.93	33.47	348	80.00	-31.86	vertical	Peak
7	5883.00	20.24	34.91	17.12	33.33	308	60.00	-21.06	vertical	Average
8	5883.00	32.08	34.91	17.12	33.33	308	80.00	-29.22	vertical	Peak
9 pp	5937.00	20.09	35.08	17.36	33.34	111	60.00	-20.81	vertical	Average
10 pk	5937.00	31.89	35.08	17.36	33.34	111	80.00	-29.01	vertical	Peak

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Test report No.:
KES-E1-15T0052
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3. Test Setup Photographs

3.1 Conducted Emission

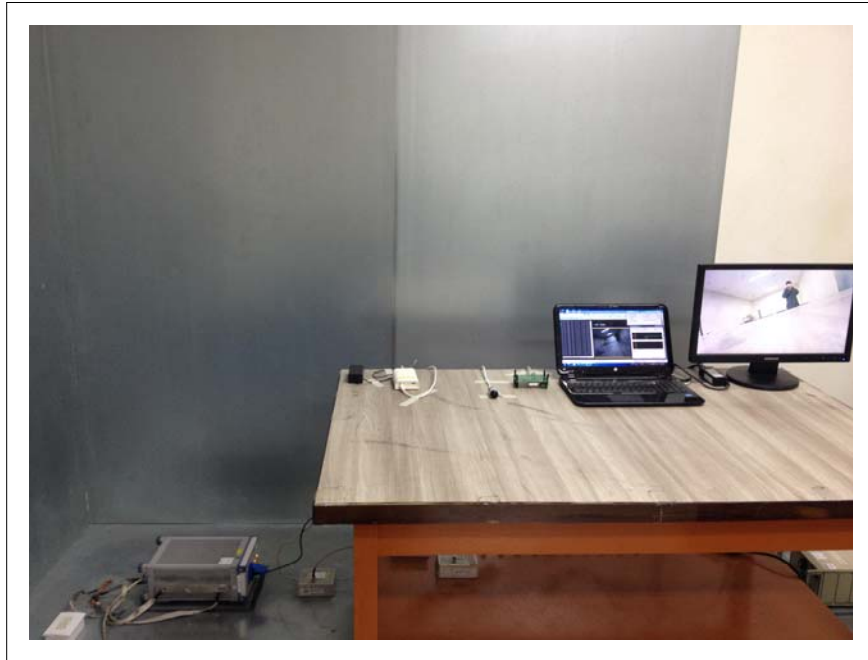
N/A

N/A

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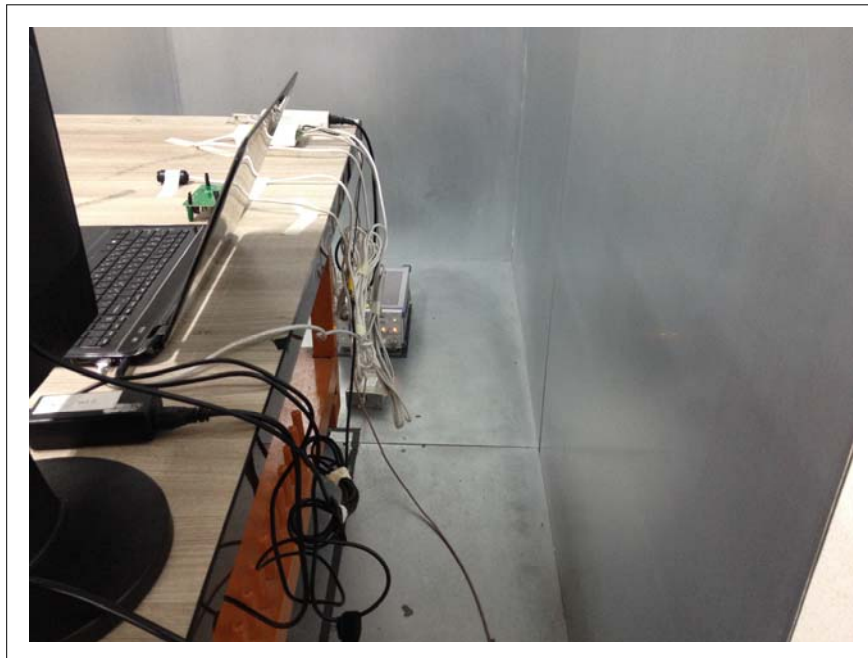
- **Telecommunication Emission**

- **12 V (dc)**



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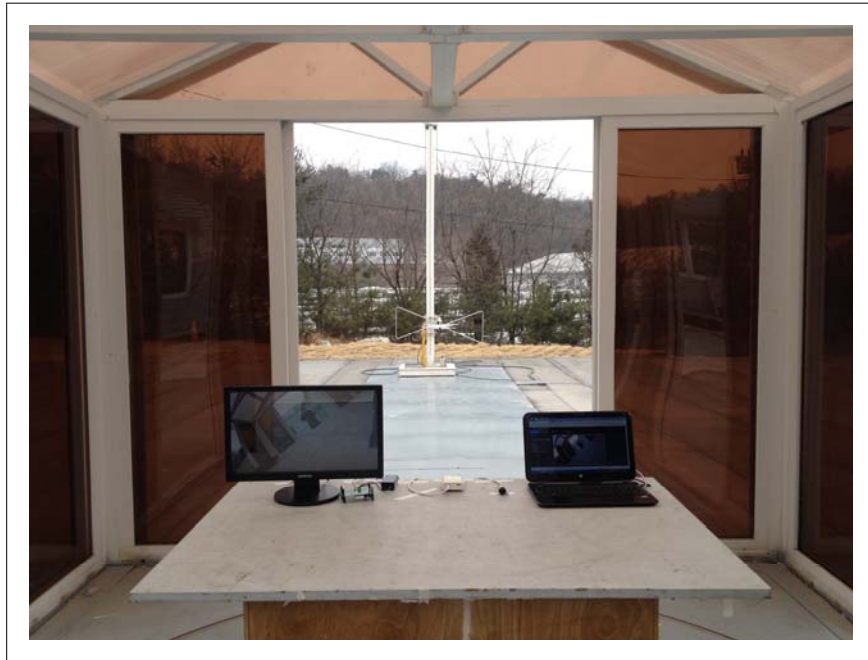
- PoE



3.2 Radiated Emission

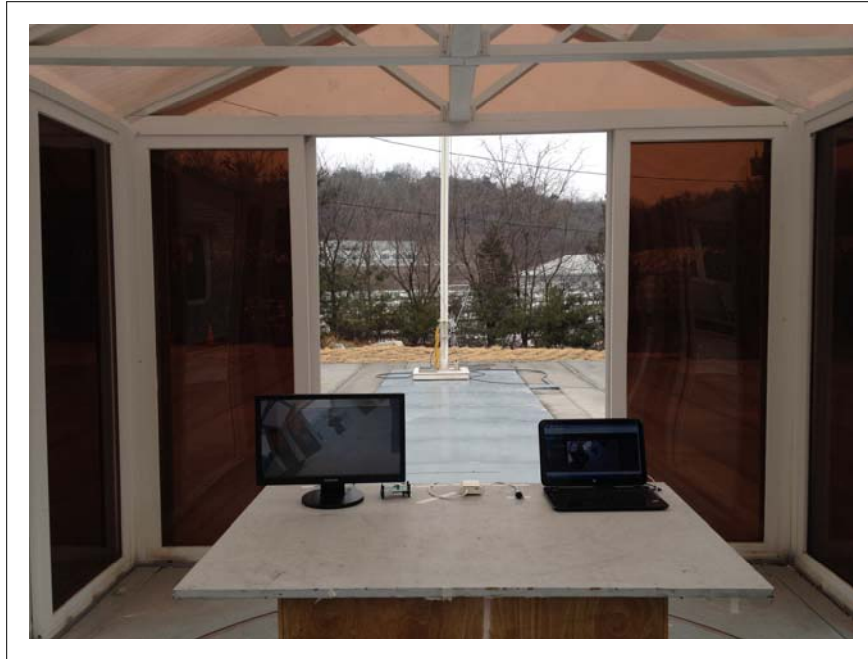
* Blow 1 GHz

- 12 V (dc)



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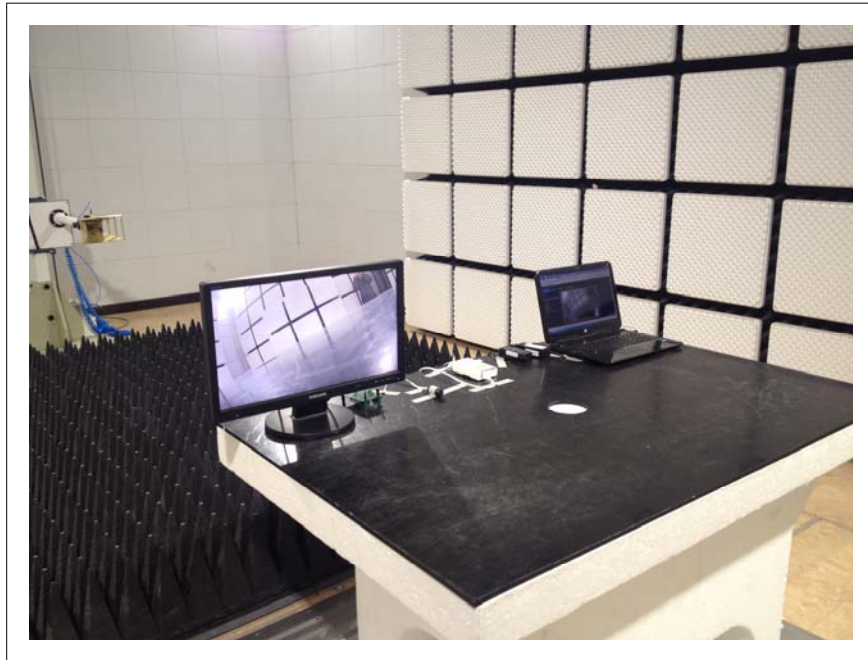
- PoE



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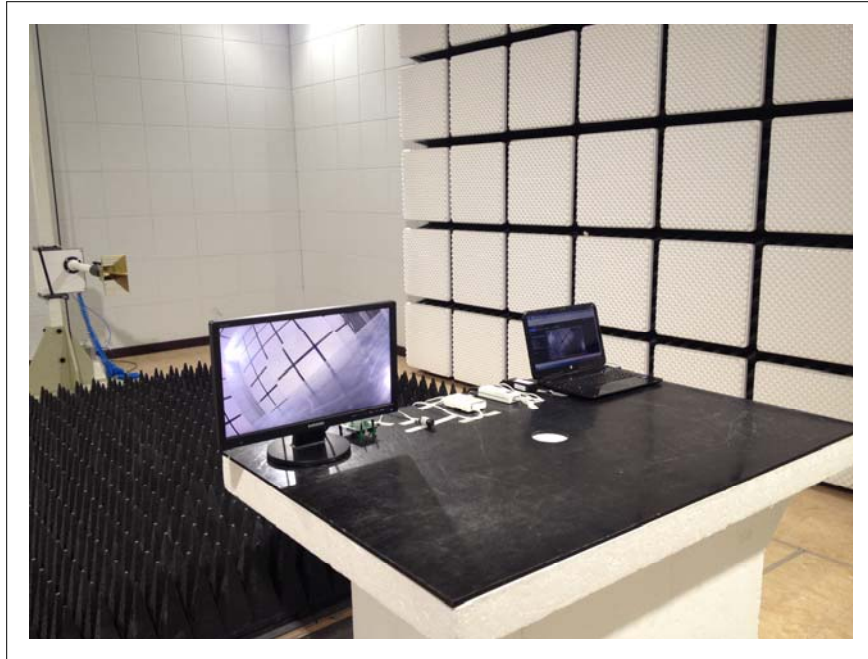
* Above 1 GHz

- 12 V (dc)



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- PoE



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4. External Photographs



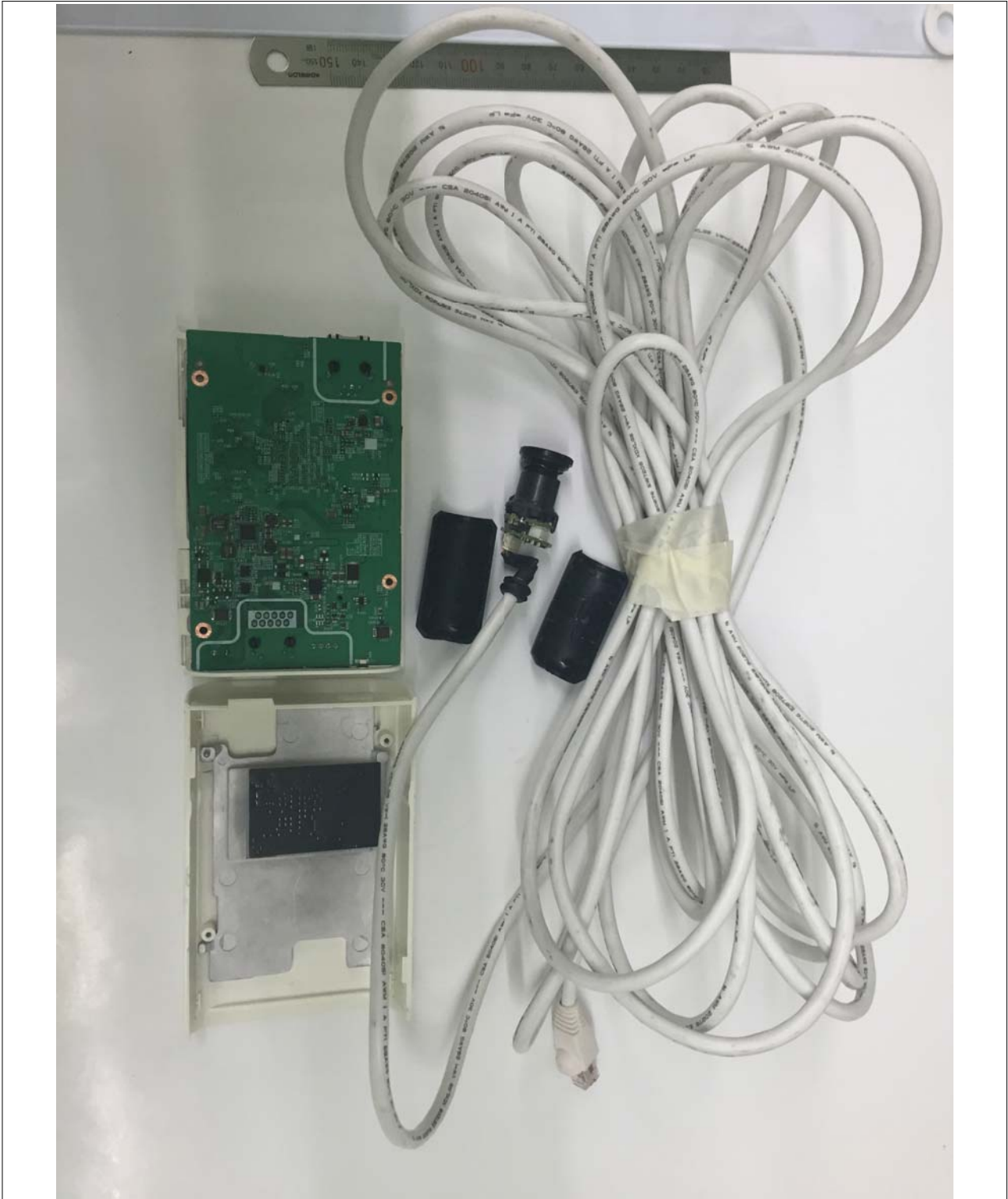
[FRONT VIEW]



[REAR VIEW]

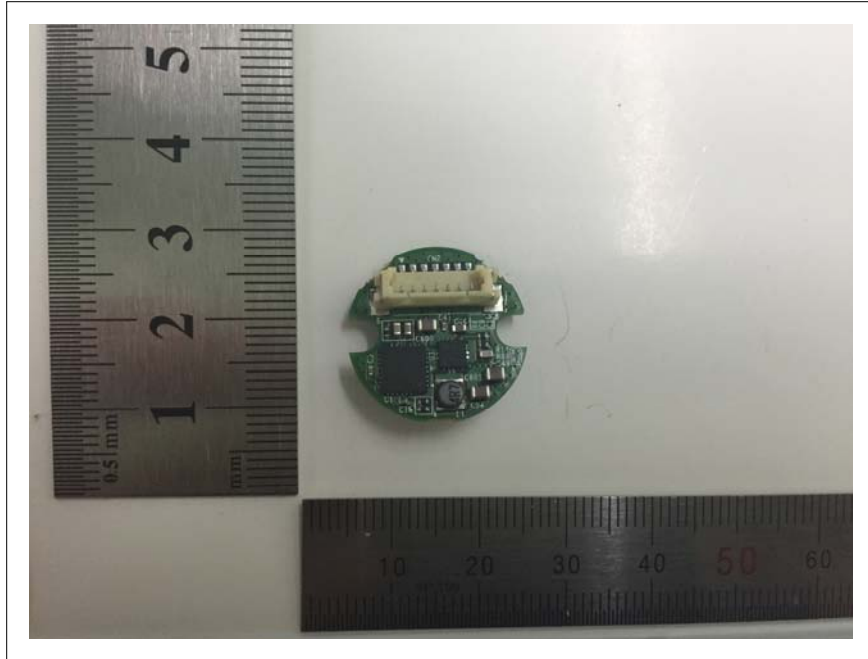
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5. Internal Photographs

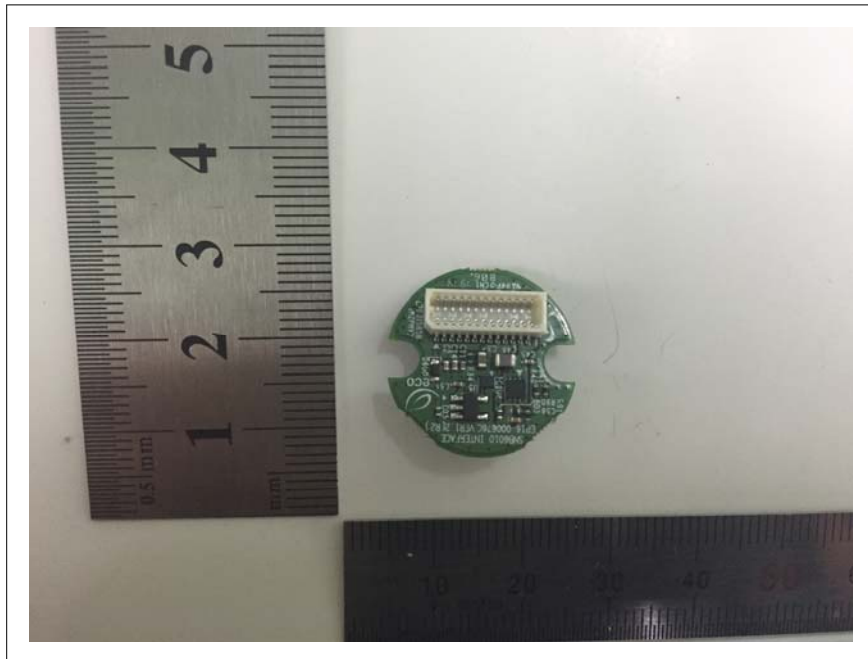


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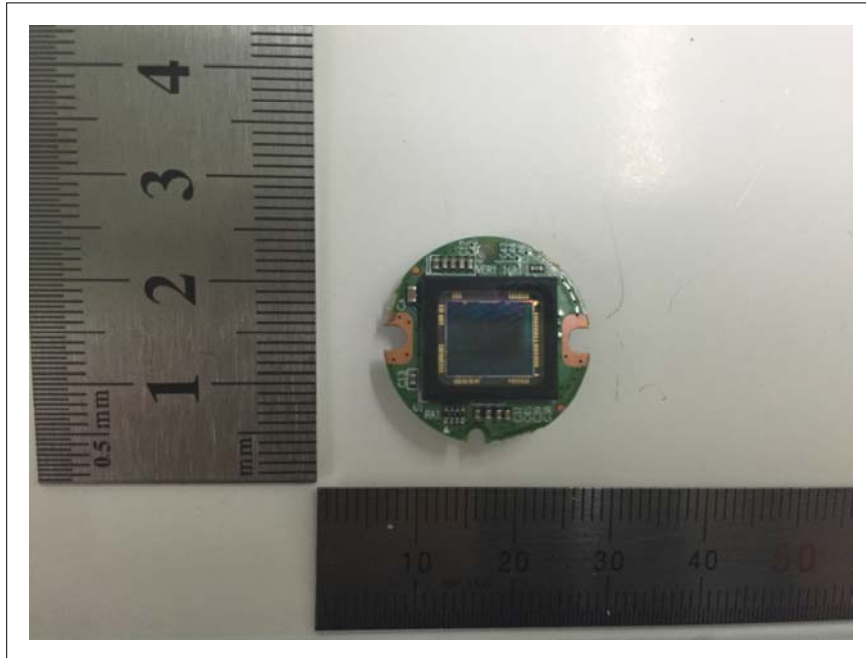
E.U.T: Internal View(Top) - Camera Unit board



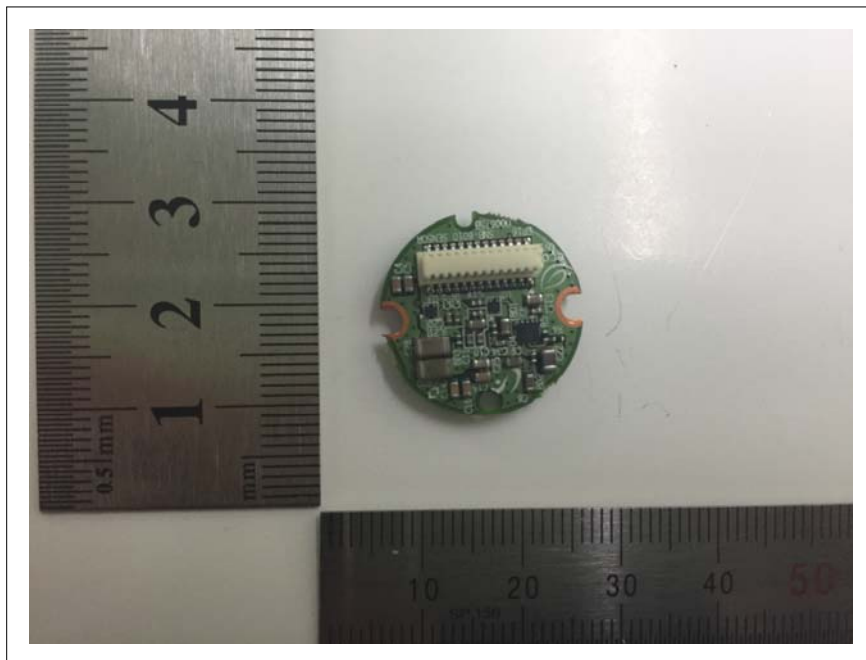
E.U.T: Internal View(Bottom) - Camera Unit board



E.U.T: Internal View(Top) - Camera Unit sub boar

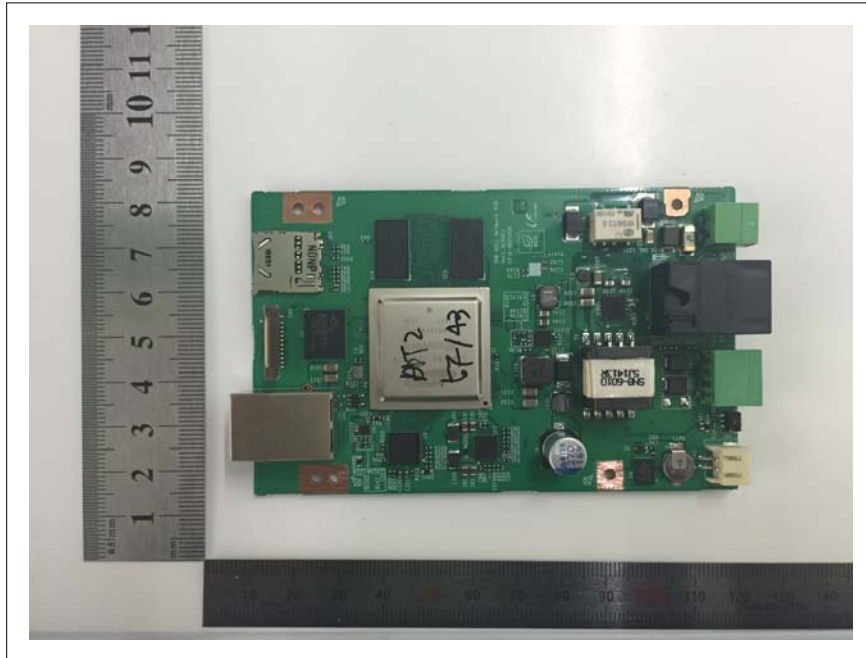


E.U.T: Internal View(Bottom) - Camera Unit sub boar

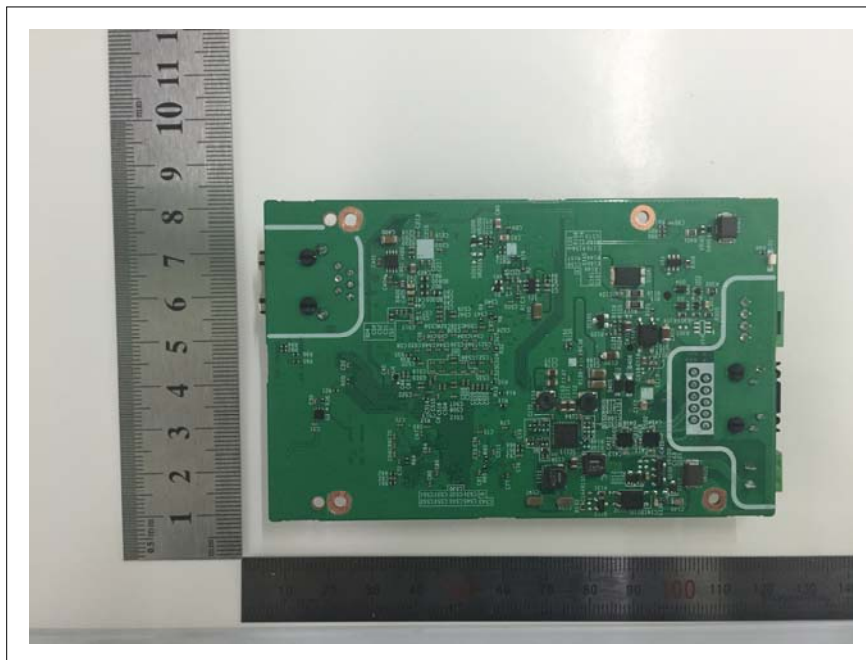


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E.U.T: Internal View(Top) - Main unit main board



E.U.T: Internal View(Bottom) - Main unit main board



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E.U.T: Internal View(Top) - Adapter



E.U.T: Internal View(Bottom) - Adapter



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E.U.T: Internal View(Top) - Adapter Label



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