

TEST REPORT

Report No. : SGS-R14-0666-EN
Applicant : SAMSUNG TECHWIN Co., Ltd.
Address : SAMSUNG TECHWIN R&D Center, #6 319 beongil,
Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do
Product : NETWORK CAMERA
Model : SNF-8010VM(Basic), SNF-8010V
Environment : (27 ± 3) °C, (42 ± 8) % R.H.
Test Date : May 28, 2014 ~ June 4, 2014
Standard : EN 50155: 2007
Section 12.2.11 Vibration, Shock and bump test
Section 12.2.3 Cooling test(T3)
Section 12.2.4 Dry heat test(T2, TX)
IEC 60529: 2001(IP66)
Test Result : Refer to the attached document
Use of report : Validation

This is certified that the above mentioned products have been tested for the sample provided by client.

Confirmation	Tested by	Approved by
	Name : An, Hyo-kyung Jun, Ki-hwan	

※ The test results is based on the test conducted on the test sample, which was requested by the client.

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June 9, 2014

SGS KOREA Co., Ltd.

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Summary of Test Results

NETWORK CAMERA / SNF-8010VM(Basic), SNF-8010V	
TEST ITEM	TEST RESULT
Simulated long life test	No abnormal was found.
Shock test	No abnormal was found.
Functional random test	No abnormal was found.
Cooling test	No abnormal was found.
Dry heat test(T2)	No abnormal was found.
Dry heat test(TX)	No abnormal was found.
IPX6	No water penetration was found.
IP6X	No dust penetration was found.

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1. Overview

As requested by the client, this test was conducted on test sample according to the test specification presented by the client.

2. Product

2.1 Description

Applicant : SAMSUNG TECHWIN Co., Ltd.
Manufacturer : SAMSUNG TECHWIN Co., Ltd.
Product : NETWORK CAMERA
Model : SNF-8010VM(Basic), SNF-8010V
Serial No. : -
Rated Voltage : DC 12 V

2.2 Model Difference by this report

Model Difference: SNF-8010V

The model SNF-8010VM is basic model that was tested.

Other models (SNF-8010V) are identical to figuration of basic model.

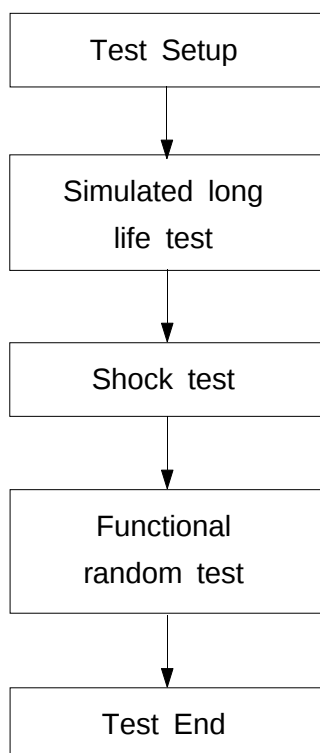
2.3 Photograph



2.4 System Configuration



3. Test Process



4. Test Condition & Test Result

Refer to each test report (Next page)

4.1 Simulated long life test

Applicant	SAMSUNG TECHWIN Co., Ltd.	Dept. in charge	Reliability Test Team
Product	NETWORK CAMERA	Tester	An, Hyo-kyung (+82-31-548-0727)
Model	SNF-8010VM(Basic), SNF-8010V	Date	May 28, 2014 ~ May 30, 2014
Serial No.	-		
Standard	EN 50155: 2007(Section 12.2.11) / EN 61373: 2010(Category 1 Class A)	Page	7

(1) Test Conditions

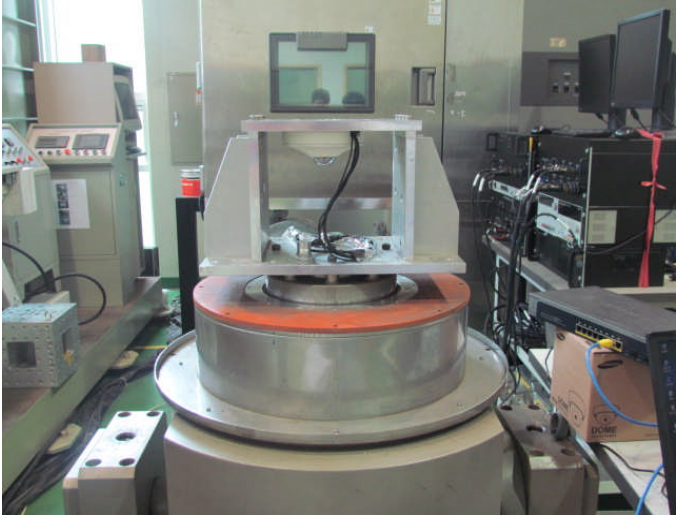
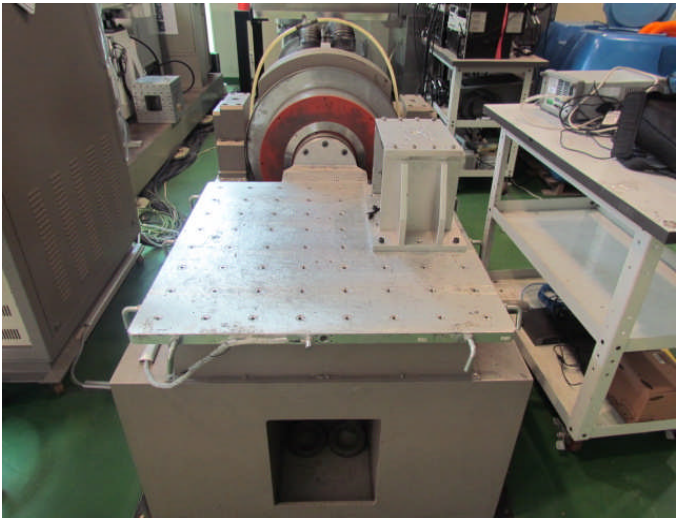
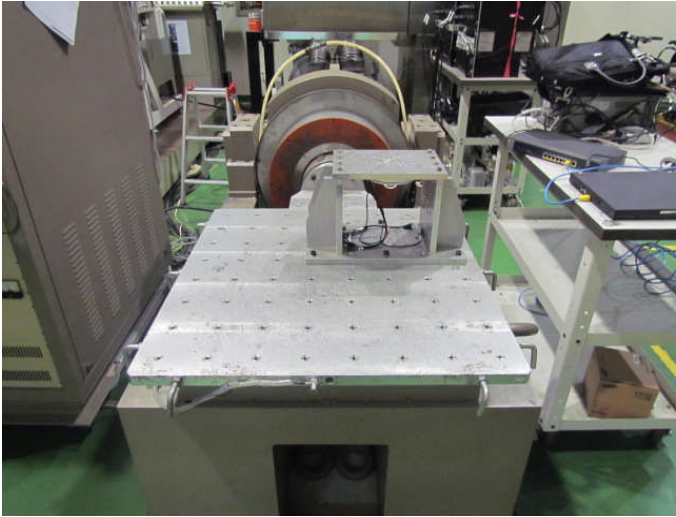
- 1) Test type : Random
- 2) Frequency : (5 ~ 150) Hz
- 3) Acceleration : Z - 4.25 m/s² r.m.s.
X - 2.09 m/s² r.m.s.
Y - 2.83 m/s² r.m.s.
- 4) Test time : Total 15 h (5 h in each axis)
- 5) Test axis : Vertical (Z), Transverse (X), Longitudinal (Y)
- 6) Check time : After the test
- 7) Sample condition : Unpackaged product / Non-operation
- 8) Sample quantity : 1 EA

(2) Environment Condition : (27 ± 3) °C, (42 ± 8) % R.H.

(3) Test Method

- 1) Perform a visual inspection and an operational check for the specimen.
- 2) Fix the specimen on the vibration table.
- 3) Operate the vibration tester.
- 4) Repeat from steps 1) to step 3) for each required axis.
- 5) Perform a final visual inspection and an operational check for the specimen.

(4) Test Photograph

Test axis	Test photograph
Vertical (Z)	
Transverse (X)	
Longitudinal (Y)	

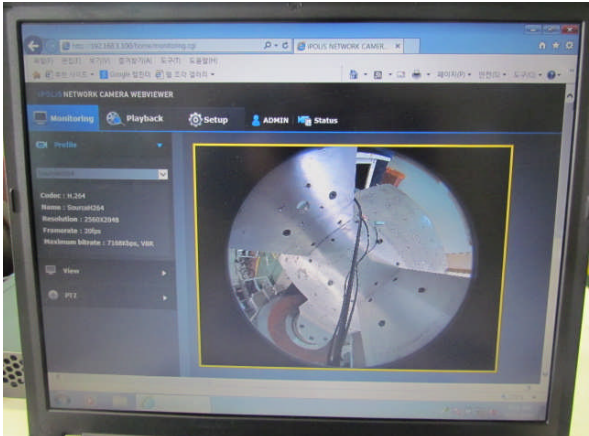
(5) Test Equipment

Description	Manufacturer and Model	Serial Number	The due date of next Calibration	Calibration Laboratory
Vibration Tester	Shinken/G-0215NS	SG-4589	May 16, 2015	SICT
Accelerometer	Shinken/V11-101S	0817	May 14, 2015	SICT

(6) Test Result

Check List	Test Result
1. Visual inspection -. Mechanical damage such as deformation, crack, separating, loosening of screw, etc.	No abnormal was found
2. Performance check -. Display output	Refer to ※ Appendix 1

※ Appendix 1. Performance check

No.	Display output
Z axis	
X axis	
Y axis	

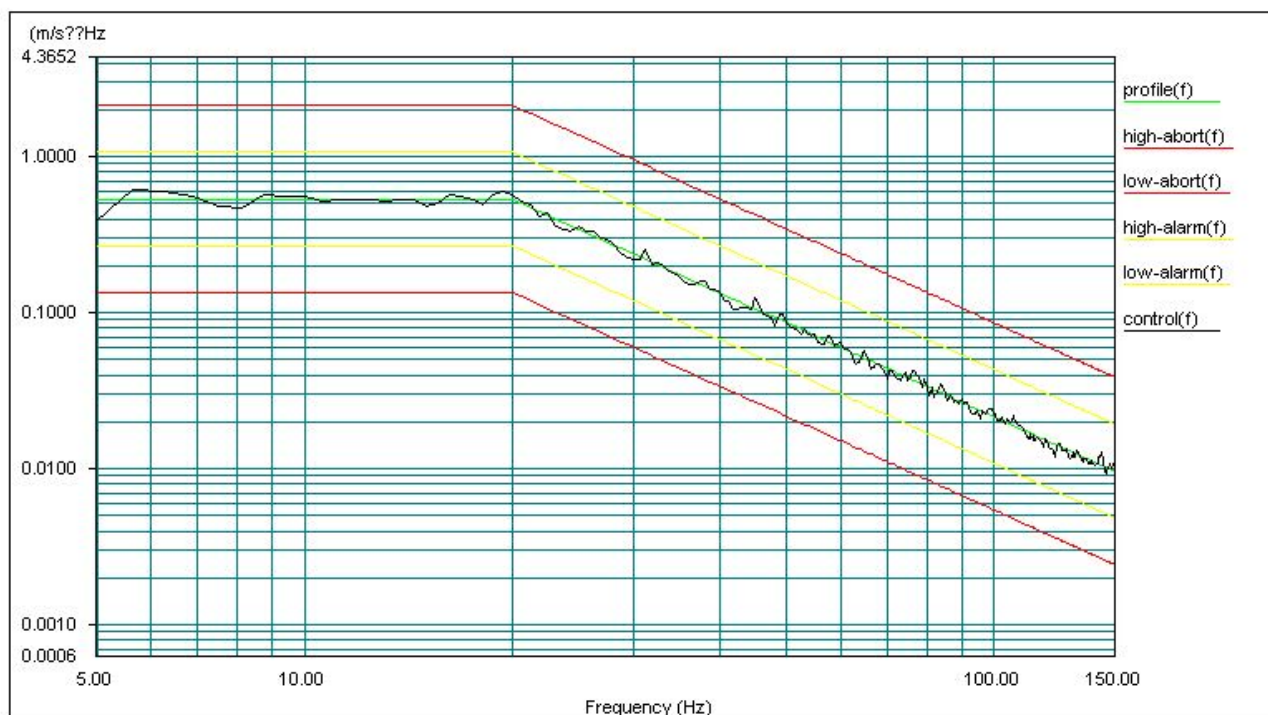
※ Appendix 2. Simulated long life test Data _ Z axis

Project File Name: Vibration Test (Z axis)

Profile Name: Class A-Long life test (Vertical)

Test Type: Random

Run Folder: \Run Default May 28, 2014 14-48-04



Level: 0 dB

Control RMS: 4.215559 m/s^2 Full Level Elapsed Time: 05:00:00

Lines: 400 Frame Time: 1.600000 Seconds

Demand RMS: 4.159759 m/s^2 Remaining Time: 00:00:00

DOF: 154 dF: 0.625000 Hz

Data saved at 07:49:53 PM, Wednesday, May 28, 2014 Report created at 07:49:54 PM, Wednesday, May 28, 2014

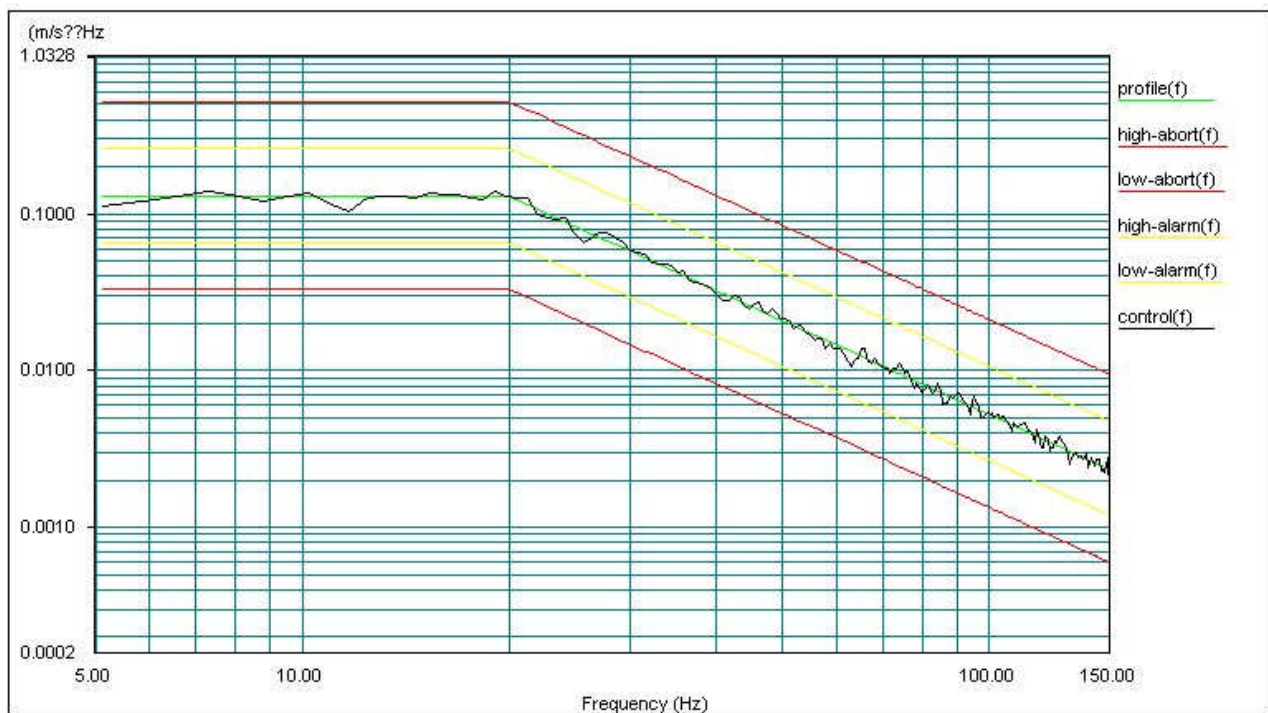
Simulated long life test Data _ X axis

Project File Name: Vibration Test (X axis).

Profile Name: Class A-Long life test (Transverse)

Test Type: Random

Run Folder: Run Default May 29, 2014 14:35:19.



Level: 0 dB

Control RMS: 2.071804 m/s² Full Level Elapsed Time: 05:00:00

Lines: 400 Frame Time: 1.365333 Seconds

Demand RMS: 2.074278 m/s² Remaining Time: 00:00:00

DOF: 154 dF 0.732422 Hz

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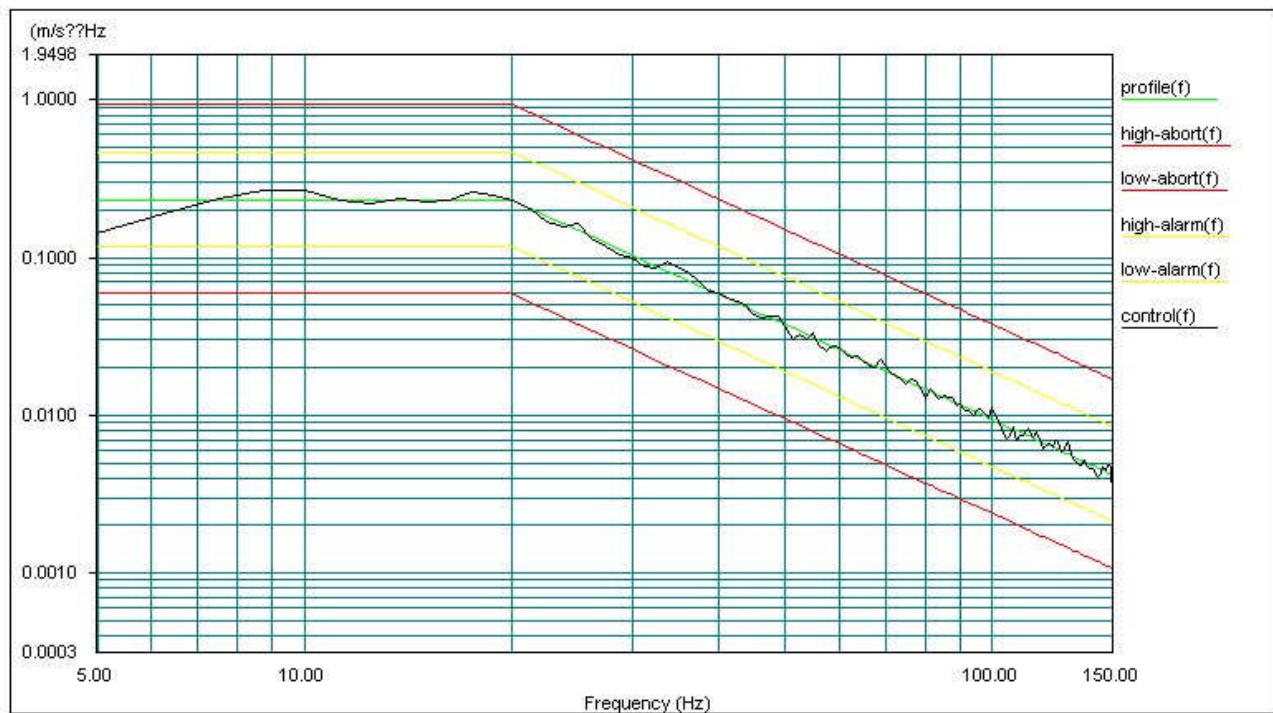
Simulated long life test Data _ Y axis

Project File Name: Vibration Test (Y axis)

Profile Name: Class A-Long life test (Longitudinal)

Test Type: Random

Run Folder: Run Default May 29, 2014 20-10-42



Level: 0 dB

Control RMS: 2.768559 m/s^2 Full Level Elapsed Time: 05:00:00

Lines: 400 Frame Time: 0.800000 Seconds

Demand RMS: 2.765682 m/s^2 Remaining Time: 00:00:00

DOF: 154 dF: 1.250000 Hz

Data saved at 01:11:16 AM, Friday, May 30, 2014 Report created at 01:11:18 AM, Friday, May 30, 2014

4.2 Shock test

Applicant	SAMSUNG TECHWIN Co., Ltd.	Dept. in charge	Reliability Test Team
Product	NETWORK CAMERA	Tester	An, Hyo-kyung (+82-31-548-0727)
Model	SNF-8010VM(Basic), SNF-8010V	Date	May 29, 2014 ~ May 30, 2014
Serial No.	-		
Standard	EN 50155: 2007(Section 12.2.11) / EN 61373: 2010(Category 1 Class A)	Page	10

(1) Test Conditions

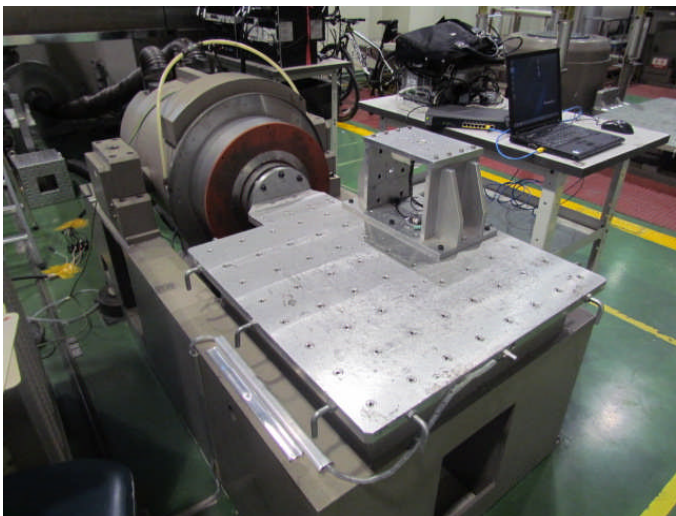
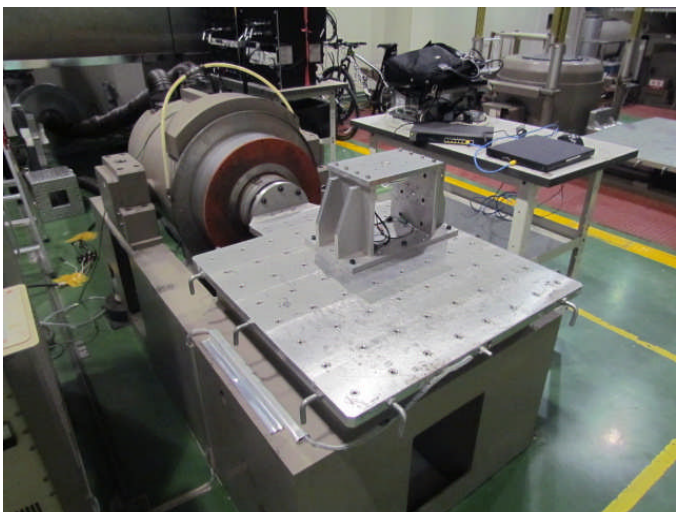
- 1) Test type : Half sine
- 2) Acceleration : Z - 30 m/s², X - 30 m/s², Y - 50 m/s²
- 3) Duration : 30 ms
- 4) Test time : 18 times in total
(6 times in each axis : positive 3 / negative 3)
- 5) Test axis : Vertical (Z), Transverse (X), Longitudinal (Y)
- 6) Check time : After the test
- 7) Sample condition : Unpackaged product / Non-operation
- 8) Sample quantity : 1 EA

(2) Environment Condition : (27 ± 3) °C, (42 ± 8) % R.H.

(3) Test Method

- 1) Perform a visual inspection and an operational check for the specimen.
- 2) Fix the specimen on the vibration table.
- 3) Operate the vibration tester.
- 4) Repeat from steps 1) to step 3) for each required axis.
- 5) Perform a final visual inspection and an operational check for the specimen.

(4) Test Photograph

Test axis	Test photograph
Vertical (Z)	
Transverse (X)	
Longitudinal (Y)	

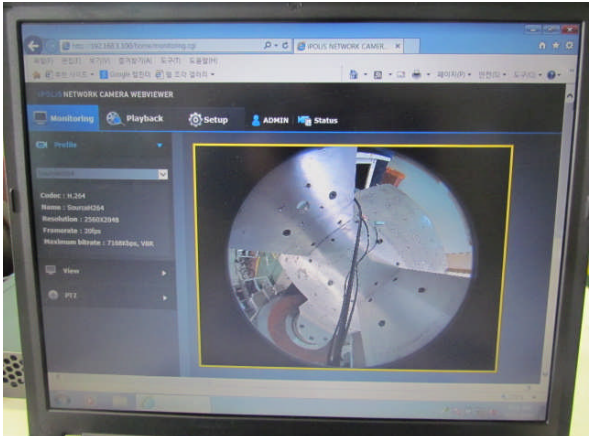
(5) Test Equipment

Description	Manufacturer and Model	Serial Number	The due date of next Calibration	Calibration Laboratory
Vibration Tester	Shinken/G-0215NS	SG-4589	May 16, 2015	SICT
Accelerometer	Endevco/7201-10	15574	July 2, 2014	KTL

(6) Test Result

Check List	Test Result
1. Visual inspection -. Mechanical damage such as deformation, crack, separating, loosening of screw, etc.	No abnormal was found
2. Performance check -. Display output	Refer to ※ Appendix 1

※ Appendix 1. Performance check

No.	Display output
Z axis	
X axis	
Y axis	

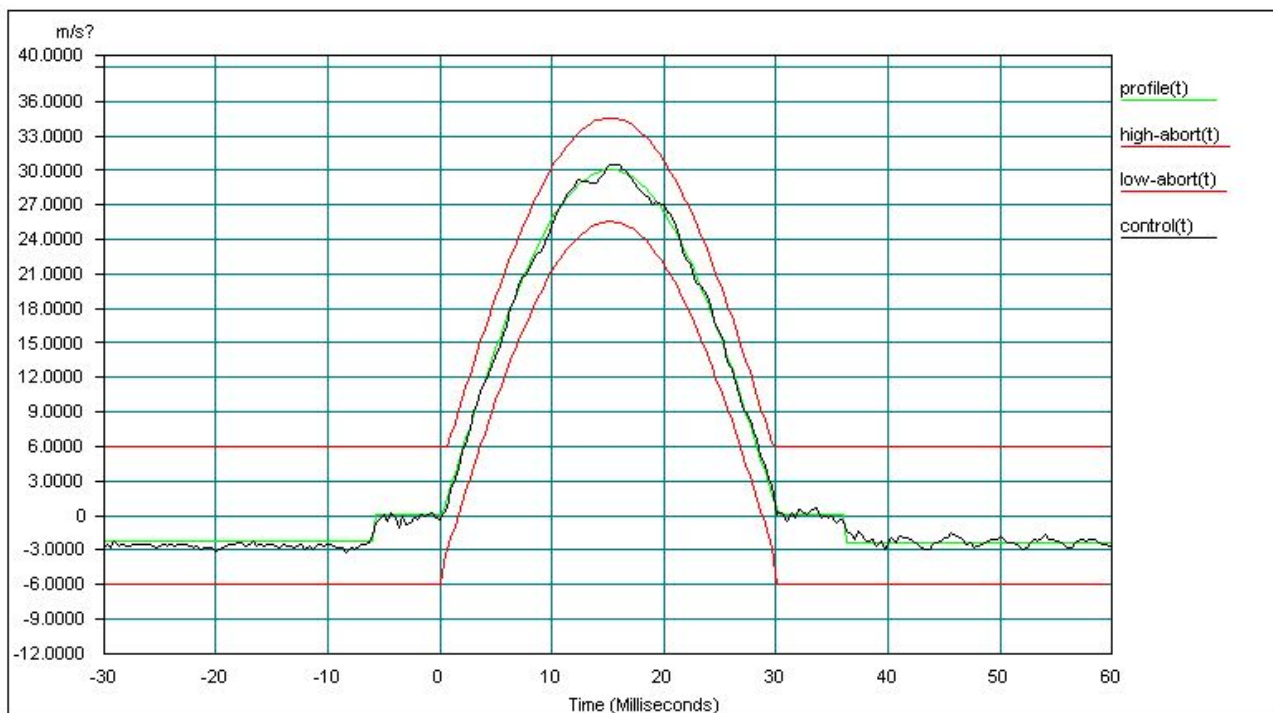
※ Appendix 2. Shock test Data _ Z axis

Project File Name: Class A-Shock Z test

Profile Name: 30m/s² 30mSec

Test Type: Classical Shock

Run Folder: .Run Default



Level: 100 % Block Size: 4096 Elapsed Pulses: 10

Frame Time: 1.365333 Seconds Control Peak: 30.477617 m/s² Control RMS: 3.369515 m/s² Full Level Elapsed Pulses: 3

dT: 0.000333 Seconds Demand Peak: 30.000000 m/s² Demand RMS: 3.365699 m/s² Remaining Pulses: 0

Pulse Type: Half Sine Amplitude: 30.000000 m/s²

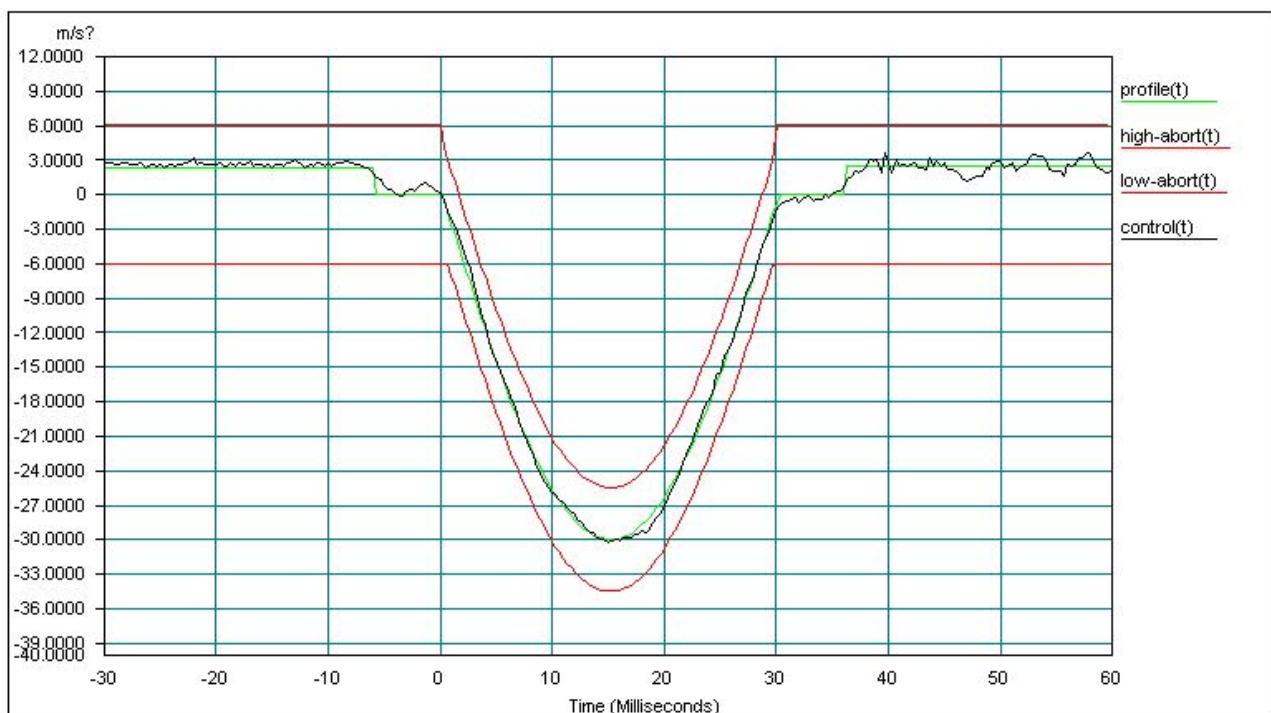
Data saved at 09:14:08 AM, Thursday, May 29, 2014 Report created at 09:14:11 AM, Thursday, May 29, 2014

Project File Name: Class A-Shock Z test.

Profile Name: 30m/s² 30mSec

Test Type: Classical Shock

Run Folder: Run Default.



Level: 100 %

Block Size: 4096

Elapsed Pulses: 10⁺

Frame Time: 1.365333 Seconds

Control Peak: 30.224962 m/s² Control RMS: 3.393001 m/s² Full Level Elapsed Pulses: 3⁺

dT: 0.000333 Seconds

Demand Peak: 30.000000 m/s² Demand RMS: 3.365699 m/s² Remaining Pulses: 0⁺

Pulse Type: Half Sine

Amplitude: 30.000000 m/s²⁺

Data saved at 09:15:12 AM, Thursday, May 29, 2014 Report created at 09:15:14 AM, Thursday, May 29, 2014 ⁺

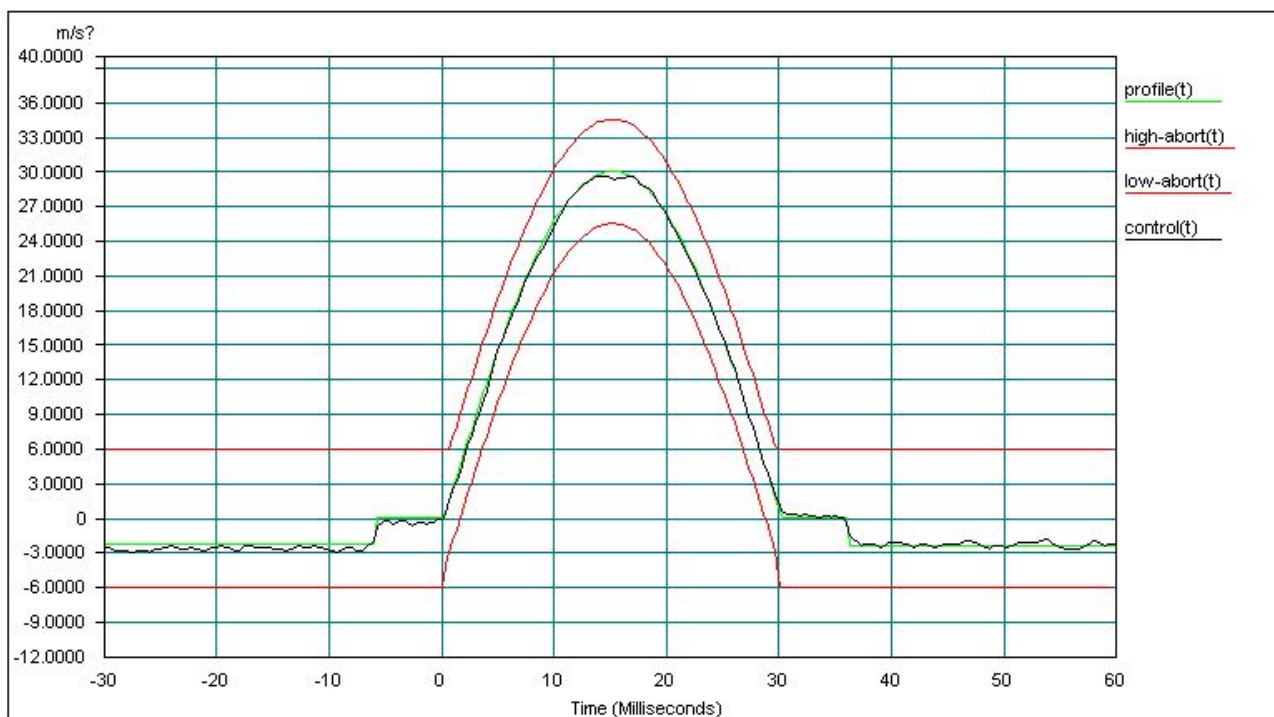
Shock test Data _ X axis

Project File Name: Class A-Shock X test.

Profile Name: 30m/s² 30mSec

Test Type: Classical Shock

Run Folder: Run Default



Level: 100 % Block Size: 4096 Elapsed Pulses: 10⁴

Frame Time: 1.365333 Seconds Control Peak: 29.643700 m/s² Control RMS: 3.362214 m/s² Full Level Elapsed Pulses: 3⁺

dT: 0.000333 Seconds Demand Peak: 30.000000 m/s² Demand RMS: 3.365699 m/s² Remaining Pulses: 0⁺

Pulse Type: Half Sine Amplitude: 30.000000 m/s²

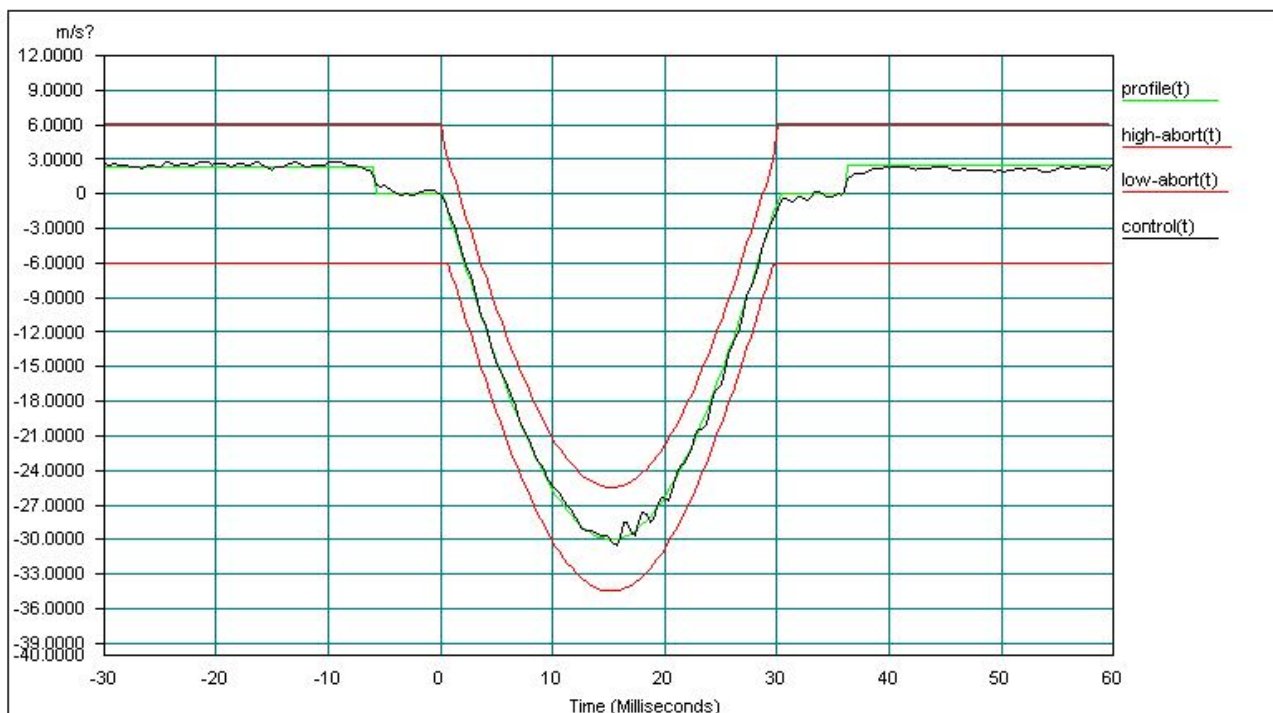
Data saved at 07:42:06 PM, Thursday, May 29, 2014 Report created at 07:42:07 PM, Thursday, May 29, 2014

Project File Name: Class A-ShockX test.

Profile Name: 30m/s² 30mSec

Test Type: Classical Shock

Run Folder: Run Default.



Level: 100 % Block Size: 4096 Elapsed Pulses: 10

Frame Time: 1.365333 Seconds Control Peak: 30.603458 m/s² Control RMS: 3.352283 m/s² Full Level Elapsed Pulses: 3

dT: 0.000333 Seconds Demand Peak: 30.000000 m/s² Demand RMS: 3.365699 m/s² Remaining Pulses: 0

Pulse Type: Half Sine Amplitude: 30.000000 m/s²

Data saved at 07:41:37 PM, Thursday, May 29, 2014 Report created at 07:41:38 PM, Thursday, May 29, 2014

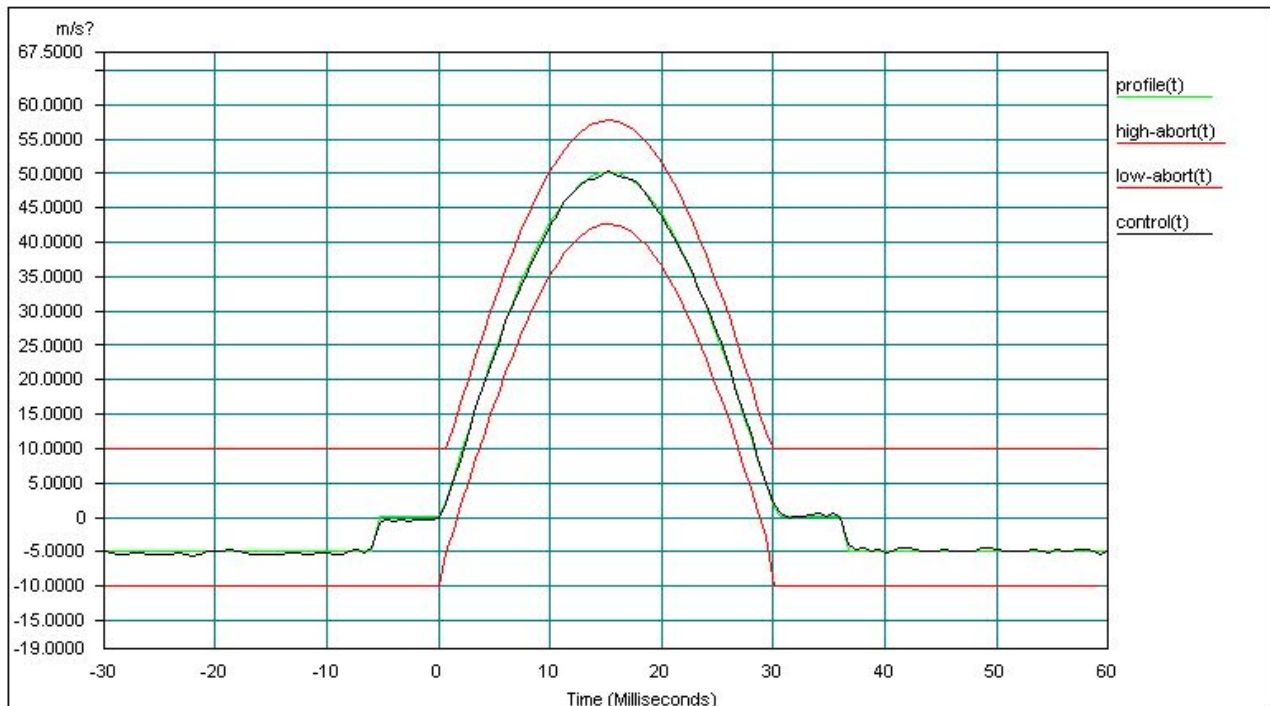
Shock test Data _ Y axis

Project File Name: Class A-Shock Y test.

Profile Name: 50m/s² 30mSec

Test Type: Classical Shock

Run Folder: .Run Default.



Level: 100 % Block Size: 2048 Elapsed Pulses: 10⁺

Frame Time: 1.365333 Seconds Control Peak: 50.137215 m/s² Control RMS: 5.688048 m/s² Full Level Elapsed Pulses: 3⁺

dT: 0.000667 Seconds Demand Peak: 50.000000 m/s² Demand RMS: 5.699245 m/s² Remaining Pulses: 0⁺

Pulse Type: Half Sine Amplitude: 50.000000 m/s²

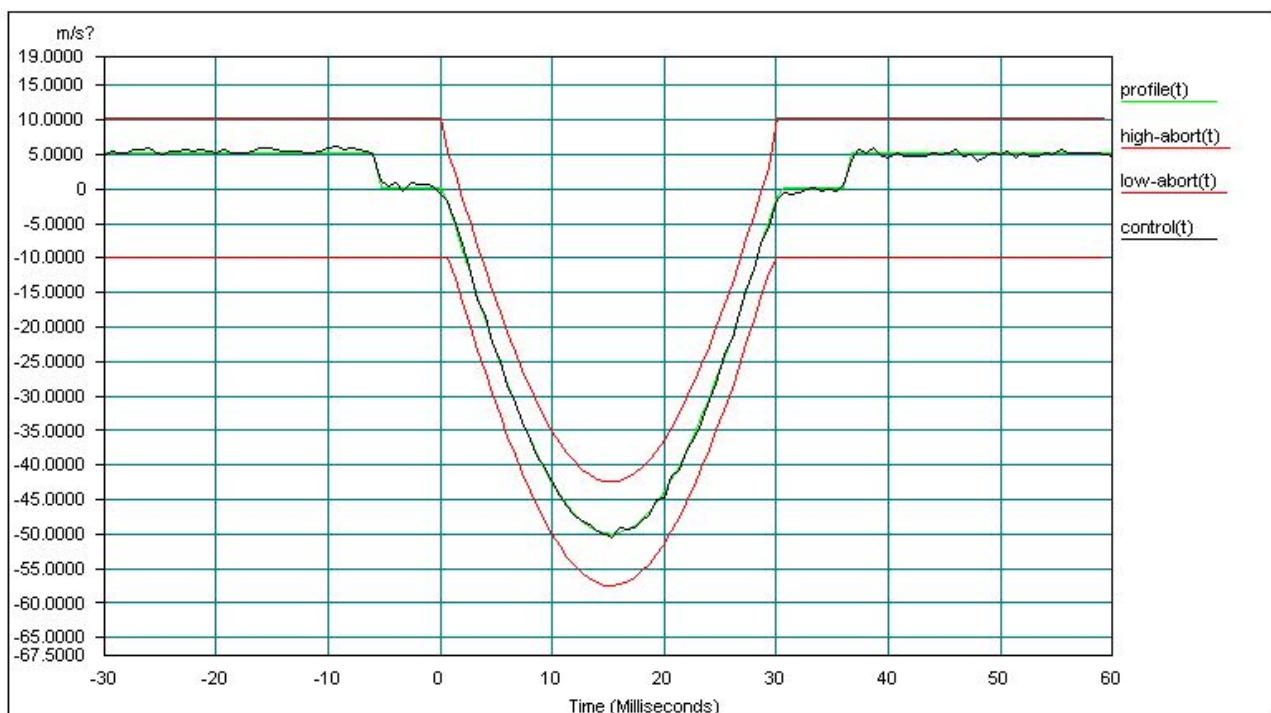
Data saved at 09:34:32 AM, Friday, May 30, 2014 Report created at 09:34:32 AM, Friday, May 30, 2014

Project File Name: Class A-Shock Y test.

Profile Name: 50m/s² 30mSec

Test Type: Classical Shock

Run Folder: .Run Default+



Level: 100 %

Block Size: 2048

Elapsed Pulses: 10+

Frame Time: 1.365333 Seconds

Control Peak: 50.475033 m/s² Control RMS: 5.726904 m/s² Full Level Elapsed Pulses: 3+

dT: 0.000667 Seconds

Demand Peak: 50.000000 m/s² Demand RMS: 5.699245 m/s² Remaining Pulses: 0+

Pulse Type: Half Sine

Amplitude: 50.000000 m/s²+

Data saved at 09:34:02 AM, Friday, May 30, 2014 Report created at 09:34:03 AM, Friday, May 30, 2014 +

4.3 Functional random test

Applicant	SAMSUNG TECHWIN Co., Ltd.	Dept. in charge	Reliability Test Team
Product	NETWORK CAMERA	Tester	An, Hyo-kyung (+82-31-548-0727)
Model	SNF-8010VM(Basic), SNF-8010V	Date	May 29, 2014 ~ May 30, 2014
Serial No.	-		
Standard	EN 50155: 2007(Section 12.2.11) / EN 61373: 2010(Category 1 Class A)	Page	7

(1) Test Conditions

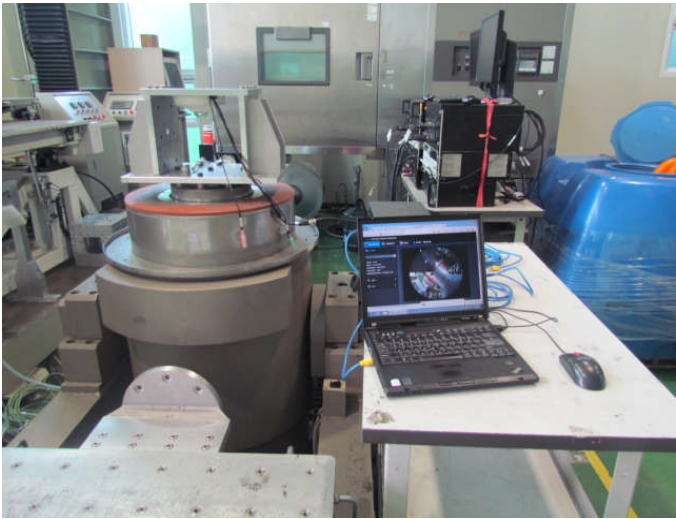
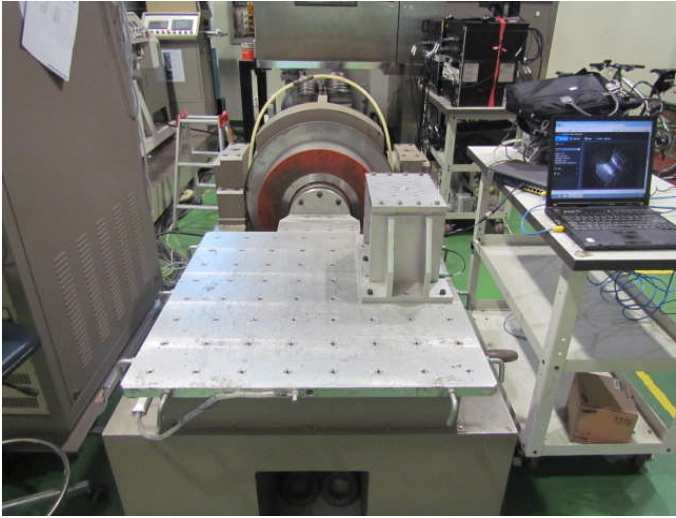
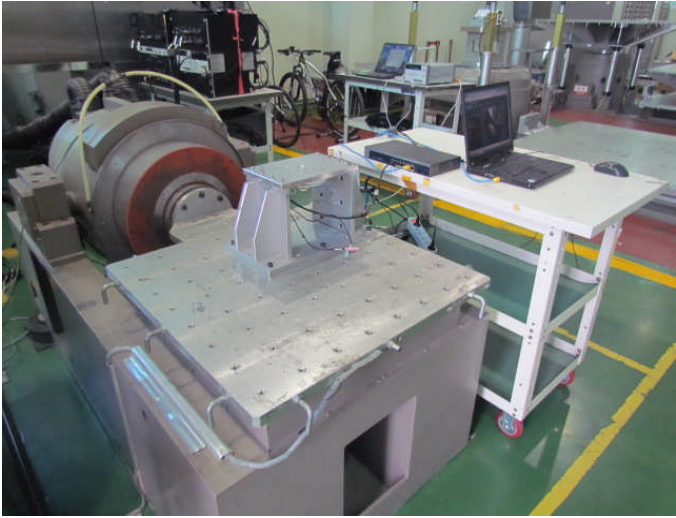
- 1) Test type : Random
- 2) Frequency : (5 ~ 150) Hz
- 3) Acceleration : Z - 0.75 m/s² r.m.s.
X - 0.37 m/s² r.m.s.
Y - 0.5 m/s² r.m.s.
- 4) Test time : Total 30 min (10 min in each axis)
- 5) Test axis : Vertical (Z), Transverse (X), Longitudinal (Y)
- 6) Check time : During the test
- 7) Sample condition : Unpackaged product / Operation
- 8) Sample quantity : 1 EA
- 9) Input voltage : DC 12 V

(2) Environment Condition : (27 ± 3) °C, (42 ± 8) % R.H.

(3) Test Method

- 1) Perform a visual inspection and an operational check for the specimen.
- 2) Fix the specimen on the vibration table.
- 3) Operate the vibration tester.
- 4) Repeat from steps 1) to step 3) for each required axis.
- 5) Perform a final visual inspection and an operational check for the specimen.

(4) Test Photograph

Test axis	Test photograph
Vertical (Z)	
Transverse (X)	
Longitudinal (Y)	

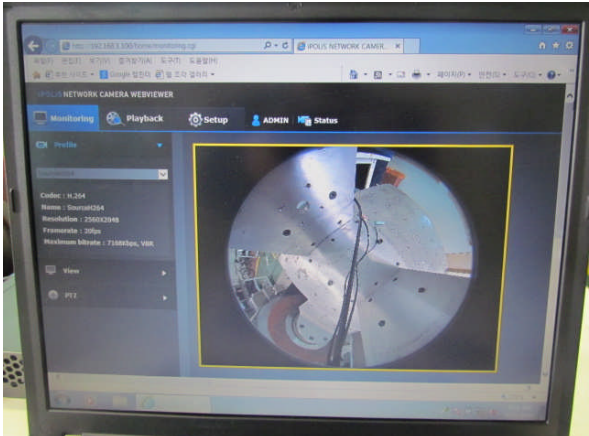
(5) Test Equipment

Description	Manufacturer and Model	Serial Number	The due date of next Calibration	Calibration Laboratory
Vibration Tester	Shinken/G-0215NS	SG-4589	May 16, 2015	SICT
Accelerometer	Shinken/V11-101S	0817	May 14, 2015	SICT

(6) Test Result

Check List	Test Result
1. Visual inspection -. Mechanical damage such as deformation, crack, separating, loosening of screw, etc.	No abnormal was found
2. Performance check -. Display output	Refer to ※ Appendix 1

※ Appendix 1. Performance check

No.	Display output
Z axis	
X axis	
Y axis	

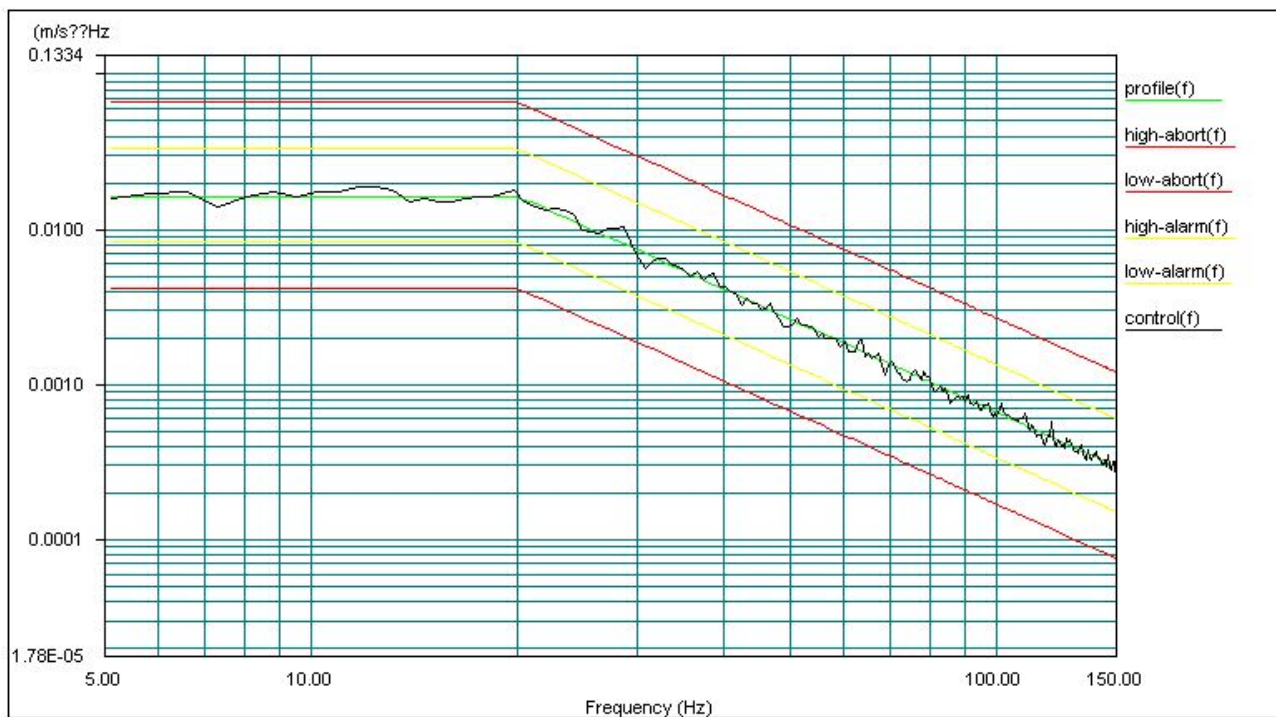
※ Appendix 2. Functional random test Data _ Z axis

Project File Name: Vibration Test (Z axis).

Profile Name: Class A-Functional test (Vertical)

Test Type: Random

Run Folder: Run Default May 29, 2014 09-15-56.



Level: 0 dB

Control RMS: 0.742387 m/s^2 Full Level Elapsed Time: 00:10:00

Lines: 400 Frame Time: 1.365333 Seconds

Demand RMS: 0.738389 m/s^2 Remaining Time: 00:00:00

DOF: 154 dB 0.732422 Hz

Data saved at 09:26:59 AM, Thursday, May 29, 2014 Report created at 09:27:00 AM, Thursday, May 29, 2014

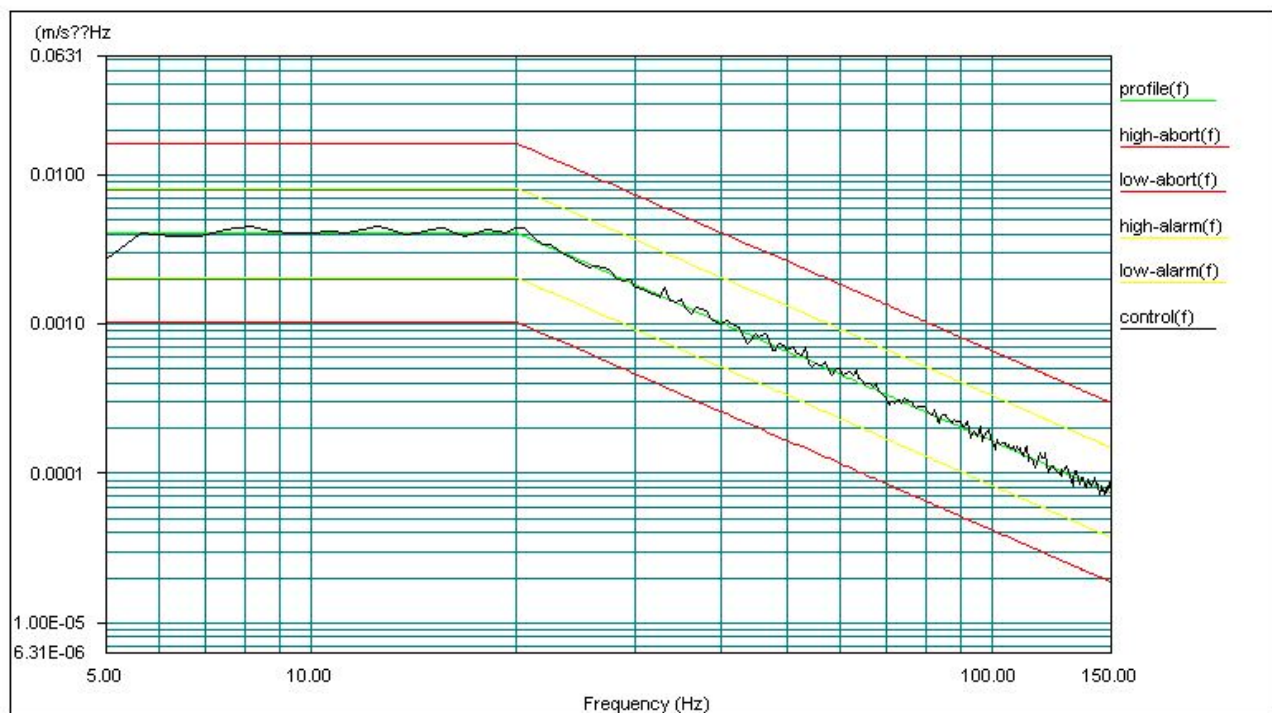
Functional random test Data _ X axis

Project File Name: Vibration Test (X axis).

Profile Name: Class A-Functional test (Transverse)

Test Type: Random

Run Folder: Run Default May 29, 2014 19-44-31.



Level: 0 dB

Control RMS: 0.398422 m/s^2 Full Level Elapsed Time: 00:10:00

Lines: 800 Frame Time: 1.600000 Seconds

Demand RMS: 0.365178 m/s^2 Remaining Time: 00:00:00

DOF: 154 dF : 0.625000 Hz

Data saved at 07:55:41 PM, Thursday, May 29, 2014 Report created at 07:56:09 PM, Thursday, May 29, 2014

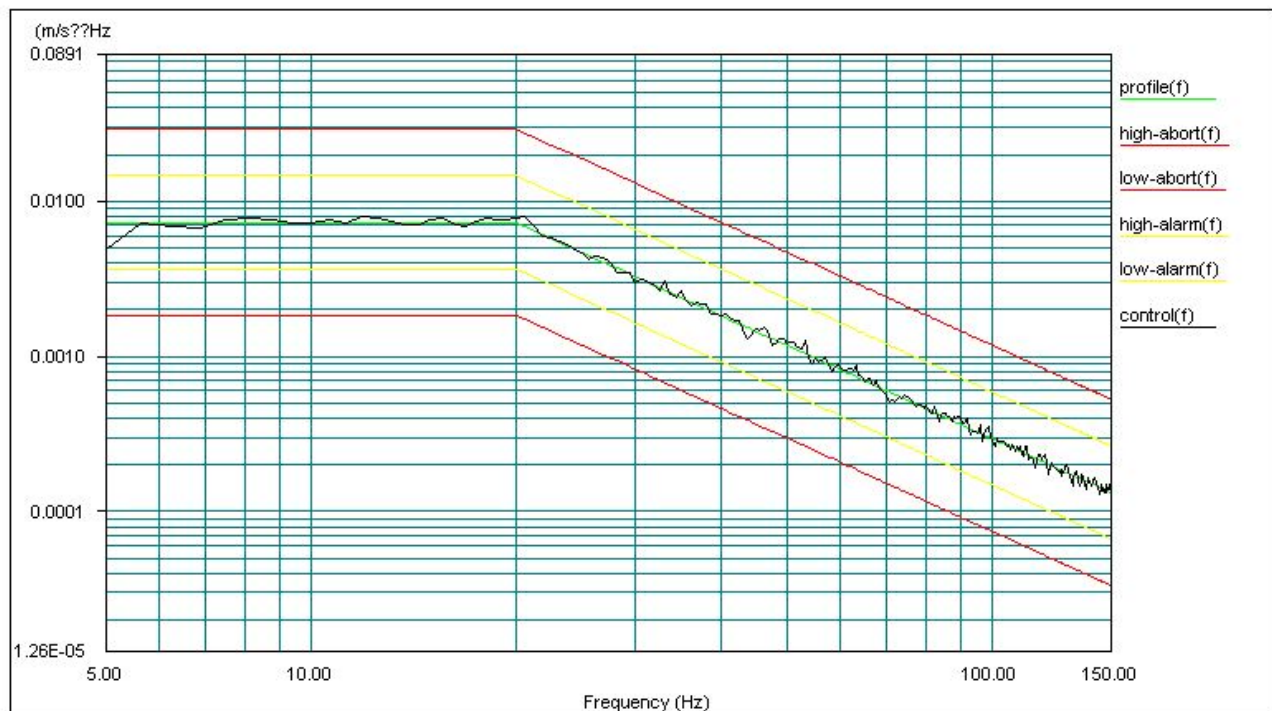
Functional random test Data _ Y axis

Project File Name: Vibration Test (Y axis).

Profile Name: Class A-Functional test (Longitudinal)

Test Type: Random

Run Folder: Run Default May 30, 2014 09-36-46.



Level: 0 dB

Control RMS: 0.497705 m/s^2 Full Level Elapsed Time: 00:10:00

Lines: 800 Frame Time: 1.600000 Seconds

Demand RMS: 0.487275 m/s^2 Remaining Time: 00:00:00

DOF: 154 dF: 0.625000 Hz

Data saved at 09:54:45 AM, Friday, May 30, 2014 Report created at 09:54:46 AM, Friday, May 30, 2014

4.4 Cooing test

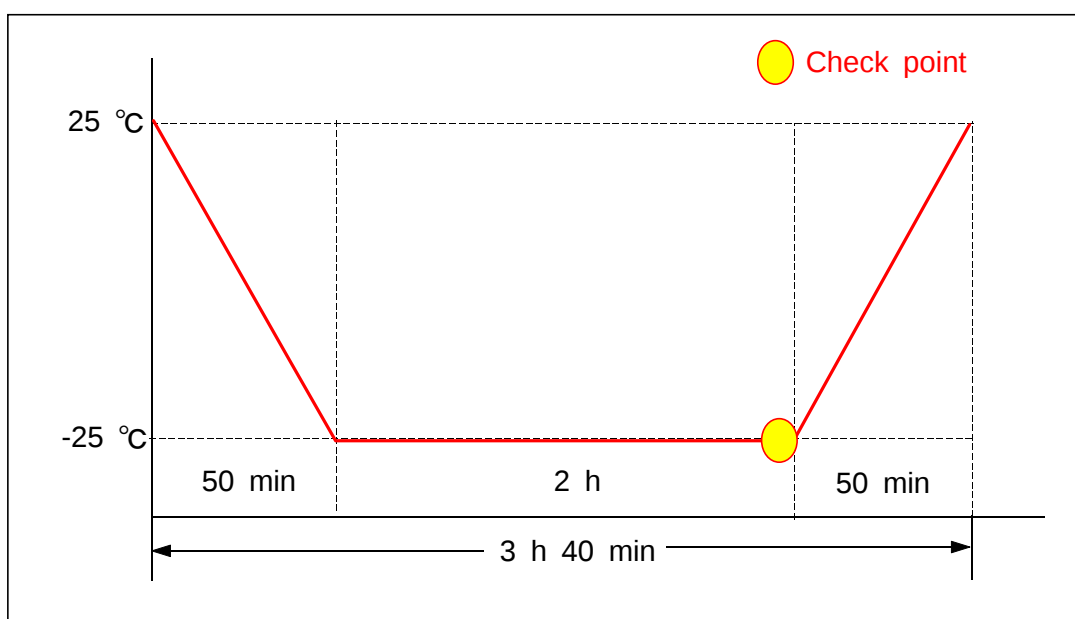
Applicant	SAMSUNG TECHWIN Co.,Ltd.	Dept. in charge	Reliability Test Team
Product	NETWORK CAMERA	Tester	Jun, Ki-hwan (+82-31-240-6682)
Model	SNF-8010VM(Basic)	Date	June 2, 2014 ~ June 3, 2014
Serial No.	N/A		
Standard	EN 50155: 2007 (Section 12.2.3 Class T3 # Column 1)	No. of pages	5

(1) Test condition

- 1) Test temperature : -25 °C
- 2) Test time : 3 h 40 min
- 3) Check point : Before the test, During the test, After the test
- 4) Status of product : ① Unpacked product ② Non-operation(Check point power on)
- 5) Input voltage : DC 12 V & PoE
- 6) Sample quantity : 1 EA

(2) Test profile

1) Temperature profile



※ Cooling test graph of the chamber is presented in appendix 2.

- 2) Before the test : Check the condition and the normal operation of sample.
- 3) After installing sample in the chamber, conduct a test as in "Temperature profile".
- 4) During the test : Perform an operational check of the test item.
- 5) After the test : After leaving the specimen at room temperature, check the specimen's visual inspection and operation.

(3) Test photograph



(4) Test Result

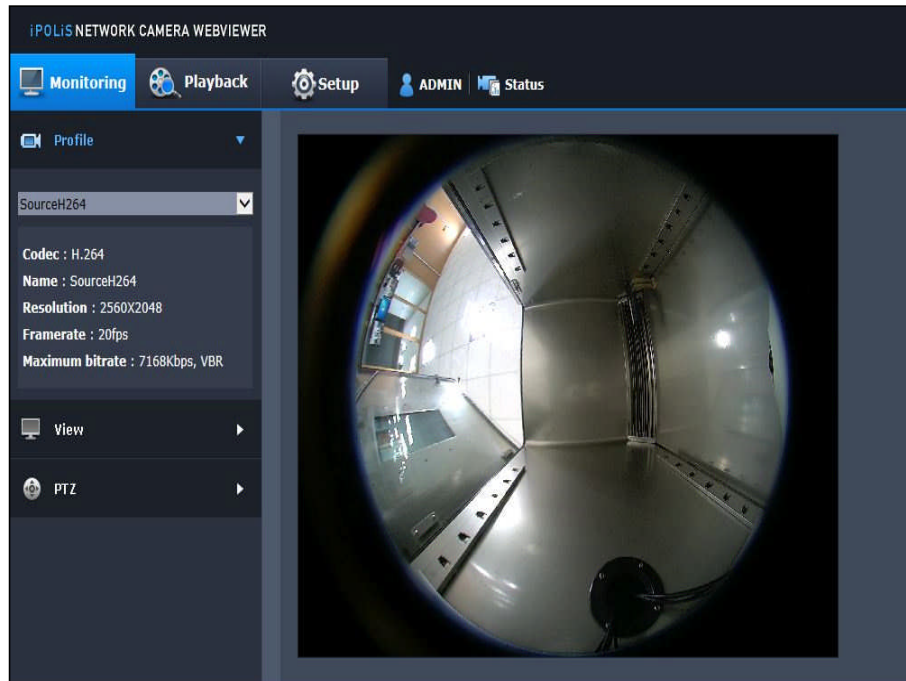
Check list	Test result
1. Operation check -. Video output check	No abnormal was found. (Refer to the appendix 1.)
2. Visual inspection	No abnormal was found.

(5) List of used equipment

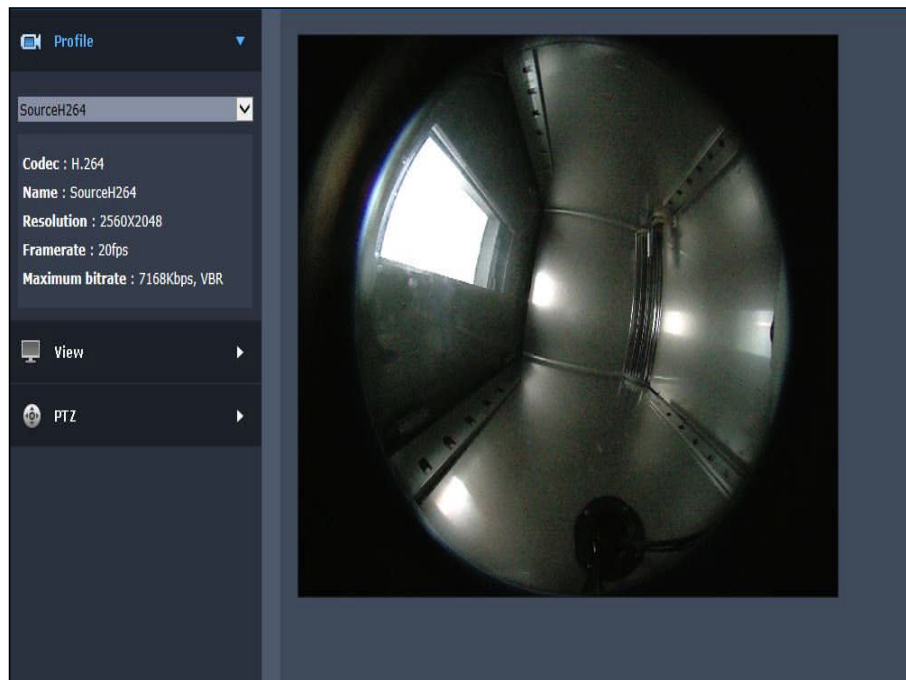
Description	Manufacturer & Model	Serial Number	The due date of next Calibration	Calibration Laboratory
Chamber	ESPEC PSL-2KPH	1402541	March 25, 2015	SICT
PoE smart switch	NETGEAR GS510TP	2TB11C5C0056A	N/A	N/A
Note PC	Lenovo T60	N/A	N/A	N/A

Appendix 1. Operation check(Video output check)

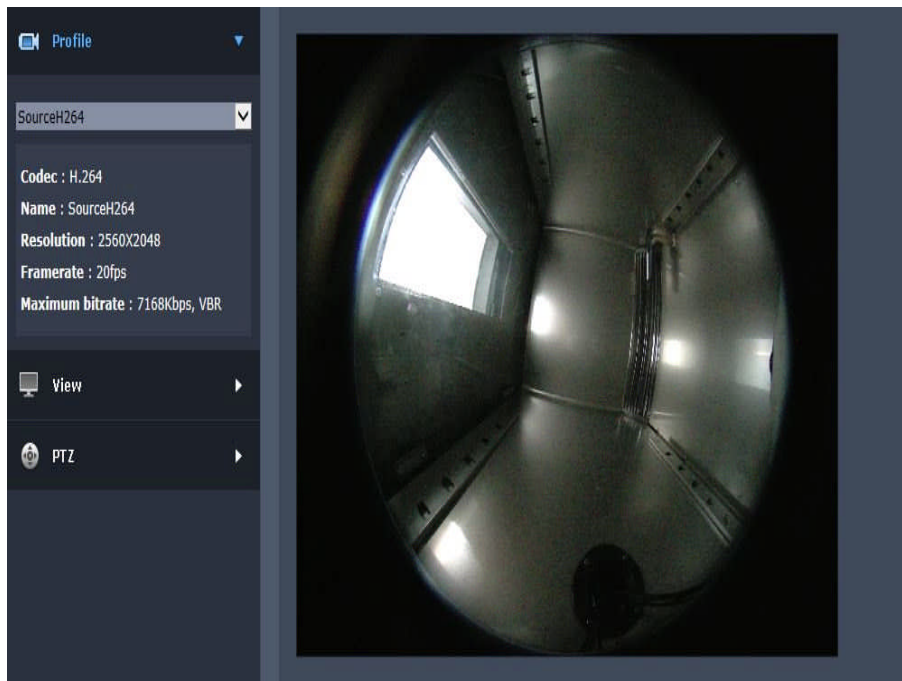
- Before the test



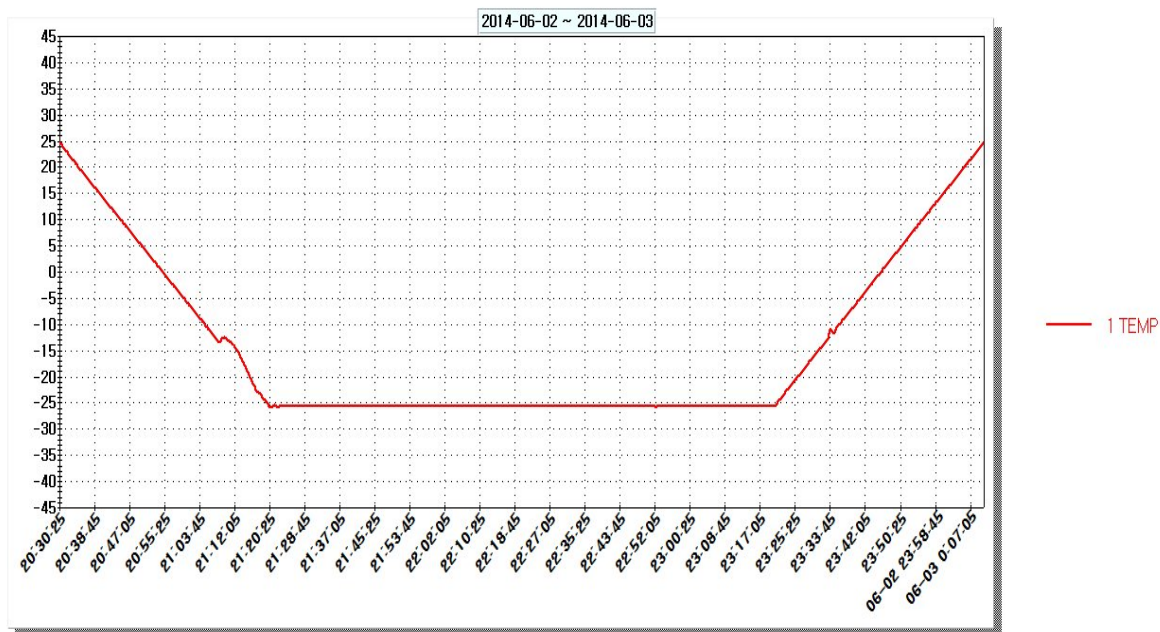
- During the test(-25 °C)



-. After the test



Appendix 2. Cooing test graph of the chamber



4.5 Dry heat test(T2)

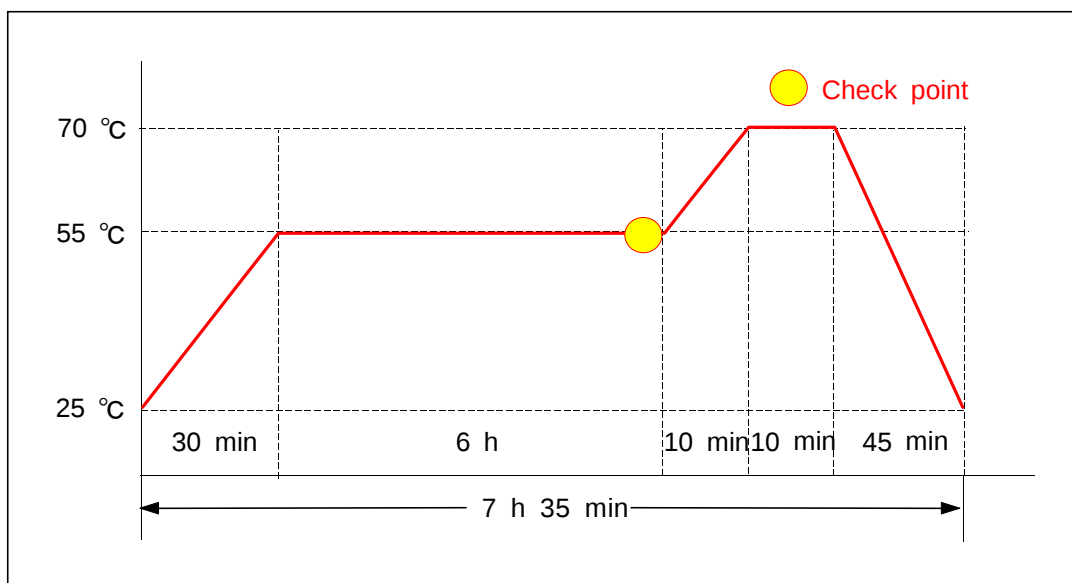
Applicant	SAMSUNG TECHWIN Co.,Ltd.	Dept. in charge	Reliability Test Team
Product	NETWORK CAMERA	Tester	Jun, Ki-hwan (+82-31-240-6682)
Model	SNF-8010VM(Basic)	Date	June 3, 2014
Serial No.	N/A		
Standard	EN 50155: 2007 (Section 12.2.4 Class T2 # Column 2)	No. of pages	5

(1) Test condition

- 1) Test temperature : (55 ~ 70) °C
- 2) Test time : 7 h 35 min
- 3) Check point : Before the test, During the test, After the test
- 4) Status of product : ① Unpacked product ② Non-operation(Check point power on)
- 5) Input voltage : DC 12 V & PoE
- 6) Sample quantity : 1 EA

(2) Test profile

1) Temperature profile



※ Dry heat test(T2) graph of the chamber is presented in appendix 2.

- 2) Before the test : Check the condition and the normal operation of sample.
- 3) After installing sample in the chamber, conduct a test as in "Temperature profile".
- 4) During the test : Perform an operational check of the test item.
- 5) After the test : After leaving the specimen at room temperature, check the specimen's visual inspection and operation.

(3) Test photograph



(4) Test Result

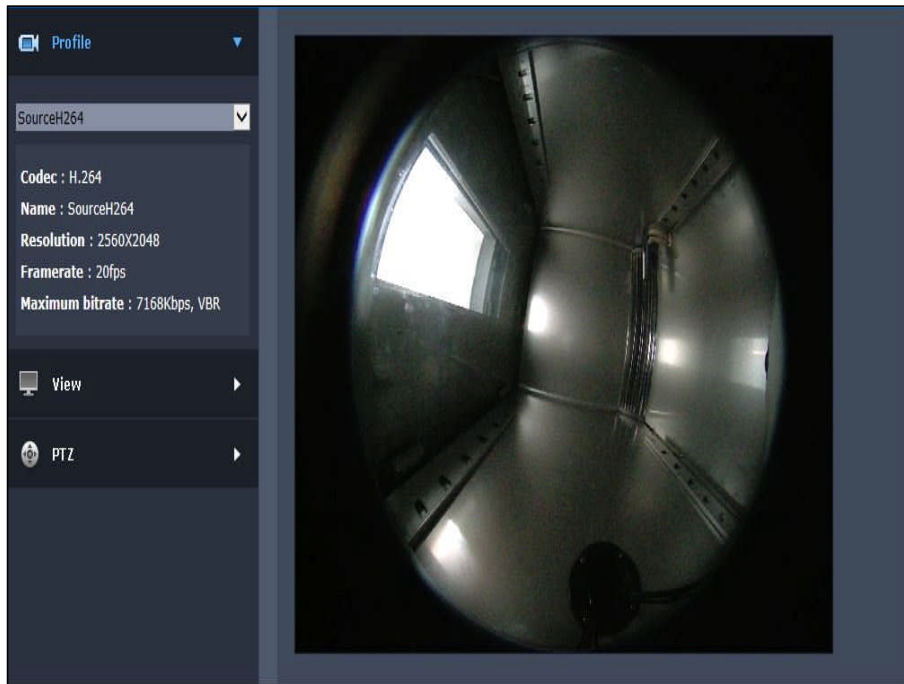
Check list	Test result
1. Operation check -. Video output check	No abnormal was found. (Refer to the appendix 1.)
2. Visual inspection	No abnormal was found.

(5) List of used equipment

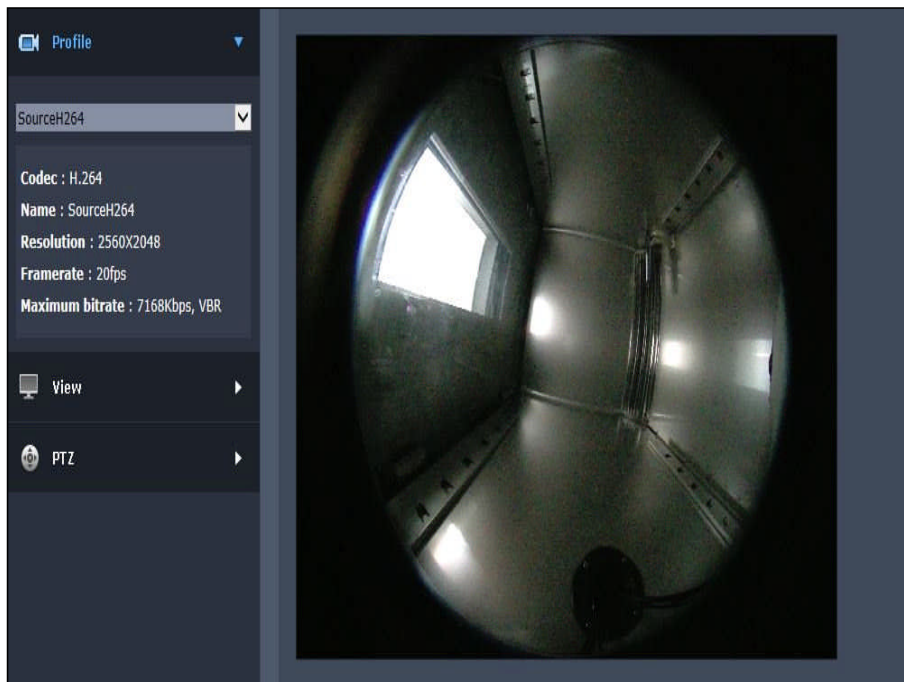
Description	Manufacturer & Model	Serial Number	The due date of next Calibration	Calibration Laboratory
Chamber	ESPEC PSL-2KPH	1402541	March 25, 2015	SICT
PoE smart switch	NETGEAR GS510TP	2TB11C5C0056A	N/A	N/A
Note PC	Lenovo T60	N/A	N/A	N/A

Appendix 1. Operation check(Video output check)

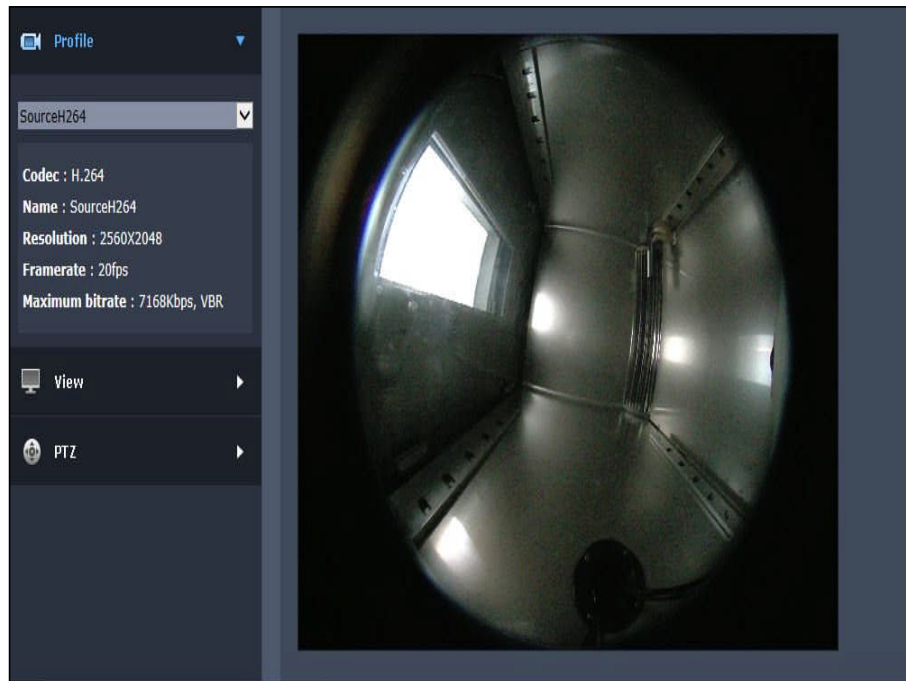
- Before the test



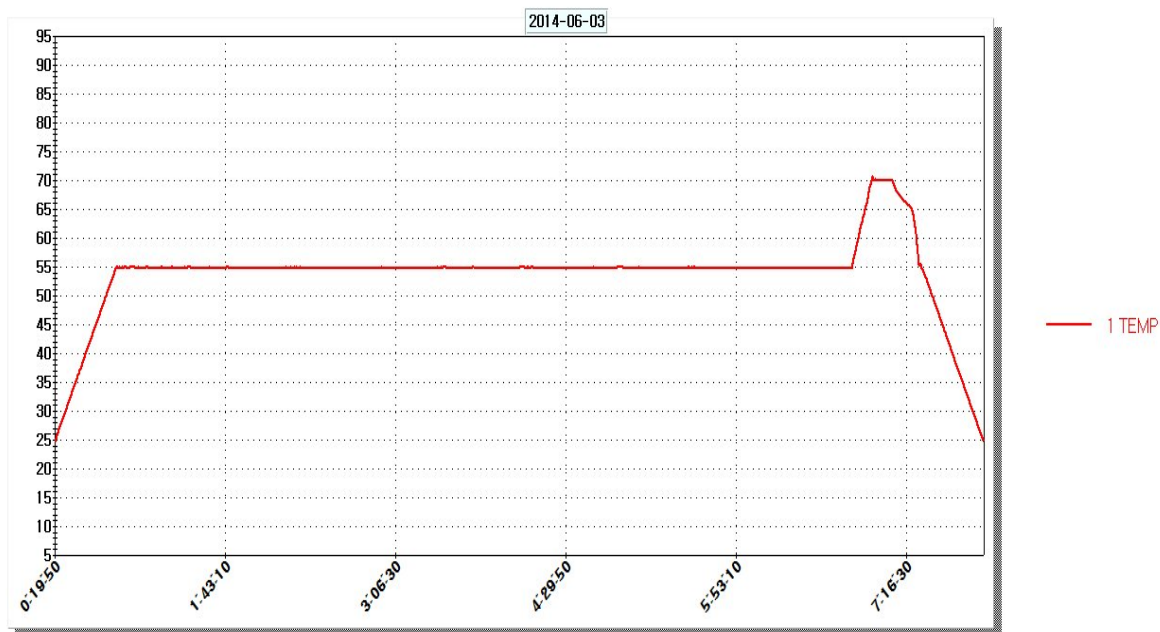
- During the test(55 °C)



-. After the test



Appendix 2. Dry heat test(T2) graph of the chamber



4.6 Dry heat test(TX)

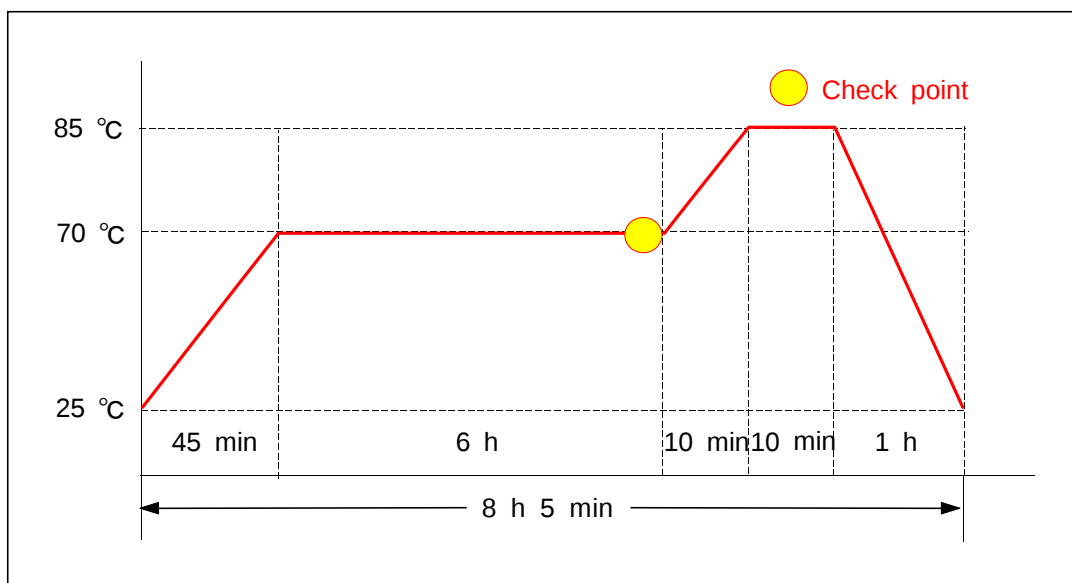
Applicant	SAMSUNG TECHWIN Co.,Ltd.	Dept. in charge	Reliability Test Team
Product	NETWORK CAMERA	Tester	Jun, Ki-hwan (+82-31-240-6682)
Model	SNF-8010VM(Basic)	Date	June 3, 2014
Serial No.	N/A		
Standard	EN 50155: 2007 (Section 12.2.4 Class TX # Column 2)	No. of pages	5

(1) Test condition

- 1) Test temperature : (55 ~ 70) °C
- 2) Test time : 8 h 5 min
- 3) Check point : Before the test, During the test, After the test
- 4) Status of product : ① Unpacked product ② Non-operation(Check point power on)
- 5) Input voltage : DC 12 V & PoE
- 6) Sample quantity : 1 EA

(2) Test profile

1) Temperature profile



※ Dry heat test(TX) graph of the chamber is presented in appendix 2.

- 2) Before the test : Check the condition and the normal operation of sample.
- 3) After installing sample in the chamber, conduct a test as in "Temperature profile".
- 4) During the test : Perform an operational check of the test item.
- 5) After the test : After leaving the specimen at room temperature, check the specimen's visual inspection and operation.

(3) Test photograph



(4) Test Result

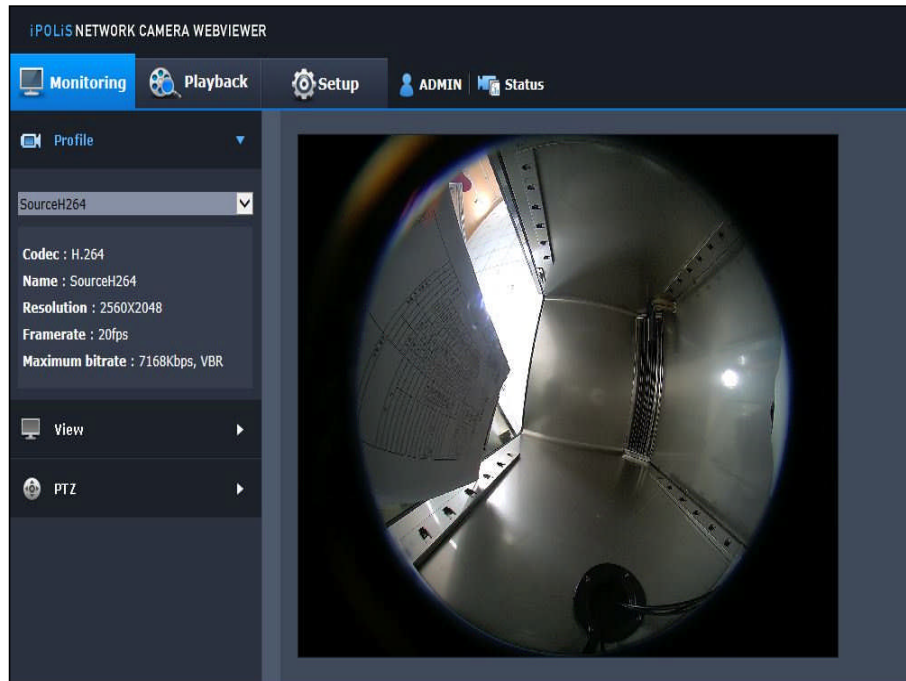
Check list	Test result
1. Operation check -. Video output check	No abnormal was found. (Refer to the appendix 1.)
2. Visual inspection	No abnormal was found.

(5) List of used equipment

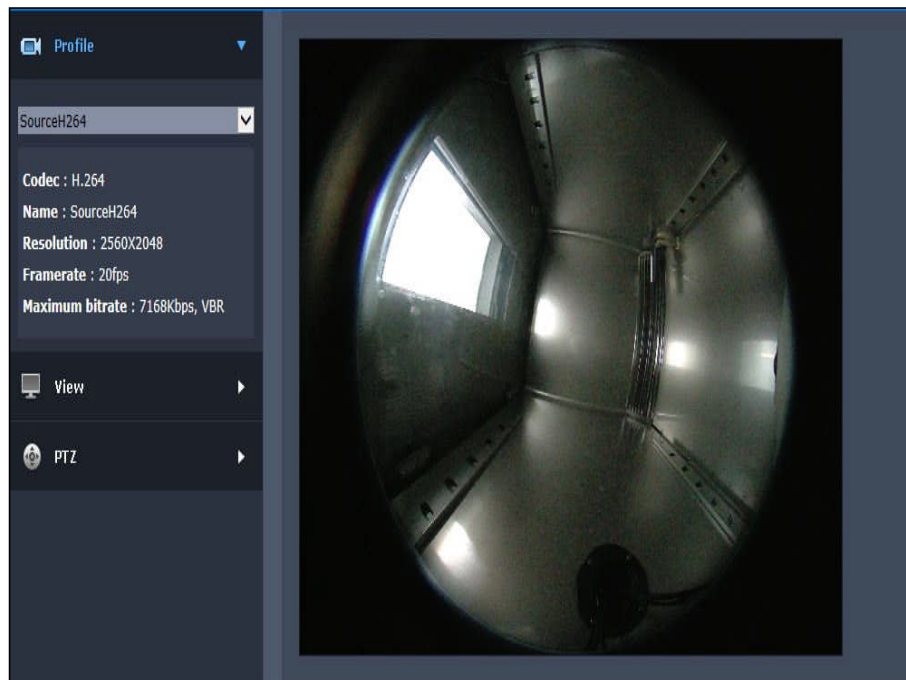
Description	Manufacturer & Model	Serial Number	The due date of next Calibration	Calibration Laboratory
Chamber	ESPEC PSL-2KPH	1402541	March 25, 2015	SICT
PoE smart switch	NETGEAR GS510TP	2TB11C5C0056A	N/A	N/A
Note PC	Lenovo T60	N/A	N/A	N/A

Appendix 1. Operation check(Video output check)

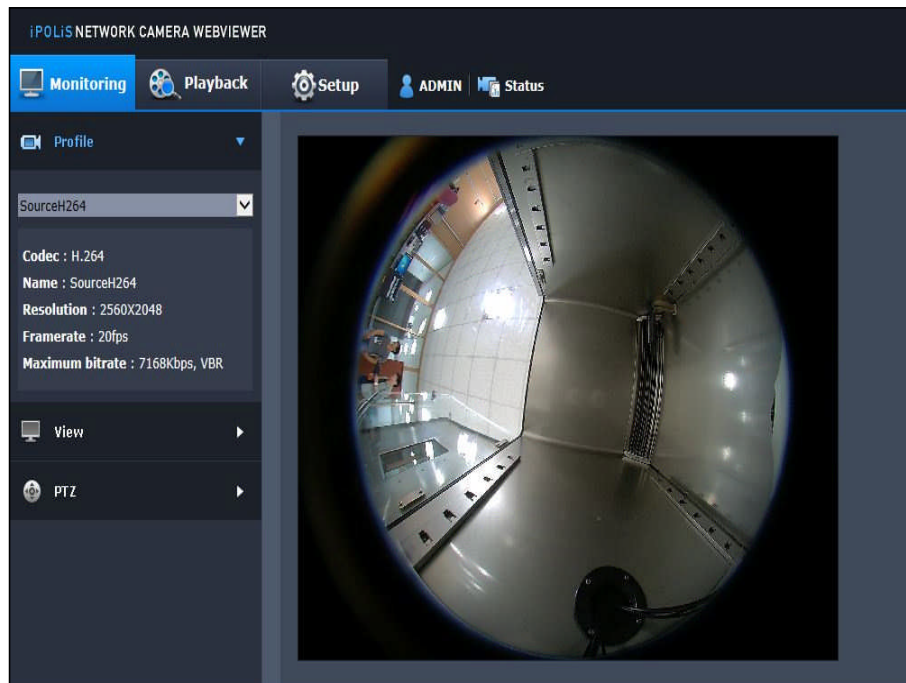
- Before the test



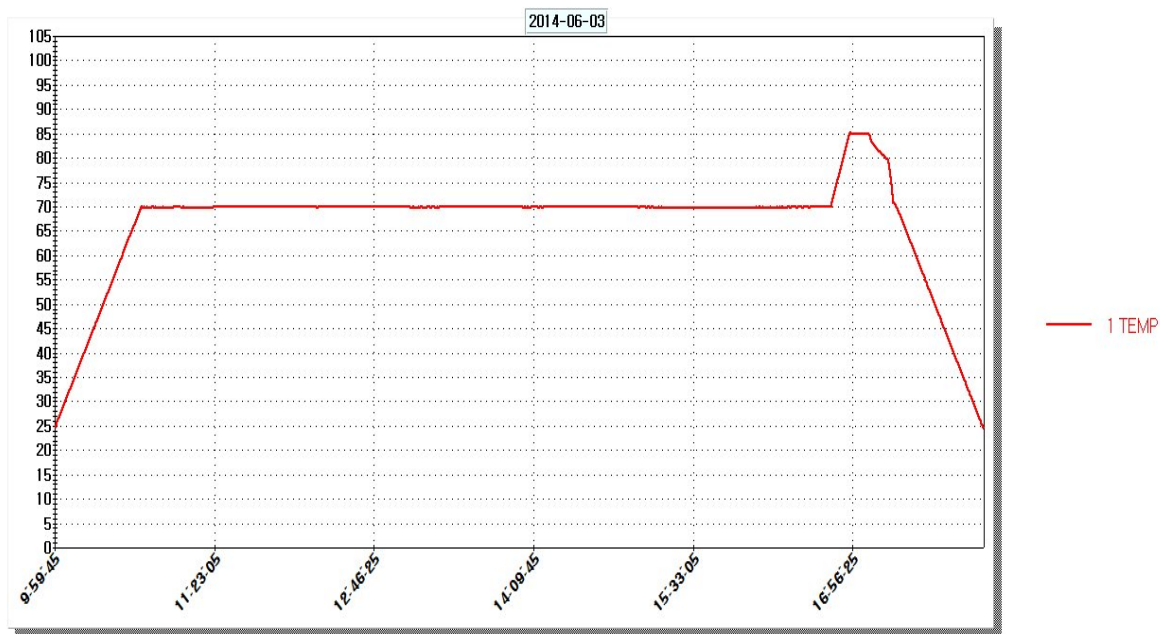
- During the test(70 °C)



-. After the test



Appendix 2. Dry heat test(TX) graph of the chamber



4.7 IPX6

Applicant	SAMSUNG TECHWIN Co.,Ltd.	Dept. in charge	Reliability Test Team
Product	NETWORK CAMERA	Tester	Jun, Ki-hwan (+82-31-240-6682)
Model	SNF-8010V	Date	June 3, 2014
Serial No.	N/A		
Standard	IEC 60529: 2001	Page	2

(1) Test Conditions

- 1) IP Code : IPX6
- 2) Delivery rate : 100 L/min $\pm$ 5 %
- 3) Displacement : From the nozzle to the sample's surface (2.5 ~ 3) m
- 4) Test duration : 3 min
- 5) Status of Product : ① Unpacked product ② Non-operation
- 6) No. of sample : 1 EA

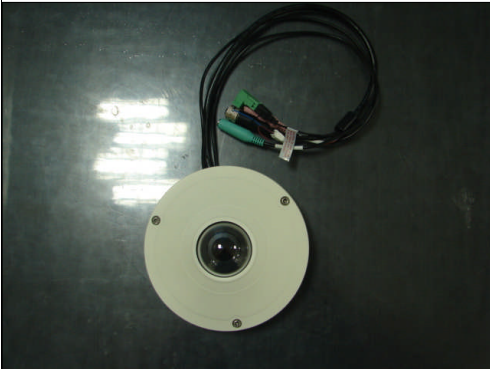
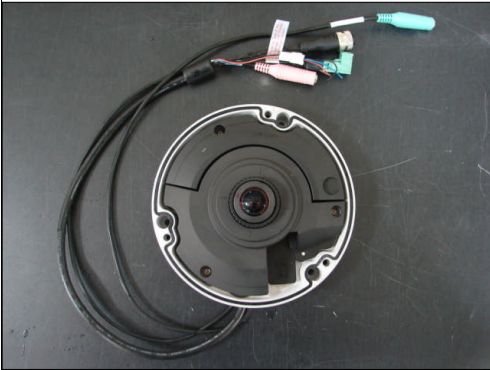
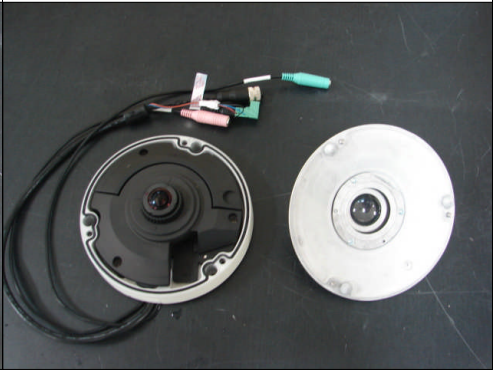
(2) List of used equipment

Description	Manufacturer & Model	Serial Number	The due date of next Calibration	Calibration Laboratory
Turbine Flowmeter	Blancett 111-110	82905362	March 14, 2015	DDHT
COUNTER/TIMER	AUTONIC FX4S	14035Y255	March 17, 2016	SICT

(3) Test results

Check list	Test result
- Confirmation of water resistance	No water penetration was found.

(4) Test photograph

	Photograph	
Before The Test		
During The Test		
After The Test		

4.8 IP6X

Applicant	SAMSUNG TECHWIN Co.,Ltd.	Dept. in charge	Reliability Test Team
Product	NETWORK CAMERA	Tester	Jun, Ki-hwan (+82-31-240-6682)
Model	SNF-8010V	Date	June 3, 2014 ~ June 4, 2014
Serial No.	N/A		
Standard	IEC 60529: 2001	Page	2

(1) Test Conditions

- 1) IP Code : IP6X
- 2) Test time : 8 h
- 3) Decompression : Maximum depression of 2 kPa (20 mbar)
- 4) Status of Product : ① Unpacked product ② Non-operation
- 5) No. of sample : 1 EA

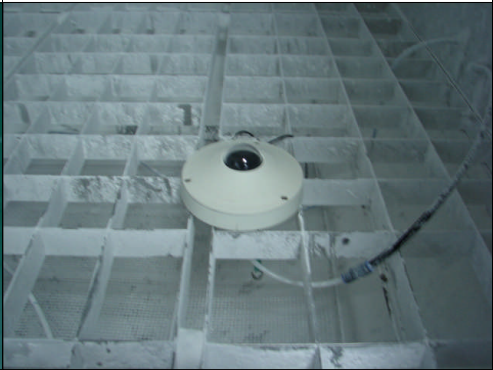
(2) List of used equipment

Description	Manufacturer & Model	Serial Number	The due date of next Calibration	Calibration Laboratory
Dust Chamber	Daekyung engineering DOC-300DSEM	DOC-11-43-10DSEM	N/A	N/A
Temperature controller	HANYOUNG KX9N-SENA	825110	June 24, 2014	SICT
Pressure Transmitter	SENSORTEC KP-21N	1107048	July 2, 2014	SICT

(3) Test results

Check list	Test result
-. Confirmation of water resistance	No water penetration was found.

(4) Test photograph

	Photograph	
Before The Test		
During The Test		
After The Test	