



# FCC DOC TEST REPORT

According to

## 47 CFR, Part 2, Part 15, CISPR PUB. 22

Applicant : Zhejiang Dahua Vision Technology Co., Ltd.

Address : The 1<sup>st</sup> floor, building F, No.1199 Bin'an road, Changhe Street, Binjiang District, Hangzhou, P.R. China.

Equipment : IP CAMERA

Model No. : IPC-HDBW5100-Mercury,IPC-HDB5100-Mercury,  
IPC-HDBW5200-Mercury,IPC-HDBW5202-Mercury,  
IPC-HDB5200-Mercury,IPC-HDB5202-Mercury,  
IPC-HDBW5300-Mercury,IPC-HDBW5302-Mercury,  
IPC-HDB5300-Mercury,IPC-HDB5302-Mercury  
DH-IPC-HDBW5100-Mercury,DH-IPC-HDB5100-Mercury,  
DH-IPC-HDBW5200-Mercury,DH-IPC-HDBW5202-Mercury,  
DH-IPC-HDB5200-Mercury,DH-IPC-HDB5202-Mercury,  
DH-IPC-HDBW5300-Mercury,H-IPC-HDBW5302-Mercury,  
DH-IPC-HDB5300-Mercury,DH-IPC-HDB5302-Mercury

- The test result refers exclusively to the test presented test model / sample.
- Without written approval of **Cerpass Technology Corp.** the test report shall not be reproduced except in full.

Laboratory Accreditation





## Contents

<b>1. Summary of Test Procedure and Test Result .....</b>	<b>5</b>
<b>2. Test Configuration of Equipment under Test.....</b>	<b>6</b>
2.1. Manufacturer.....	6
2.2. Feature of Equipment under Test .....	6
2.3. Test Manner .....	8
2.4. Description of Test System .....	9
2.5. General Information of Test .....	10
2.6. Measurement Uncertainty .....	10
<b>3. Test of Conducted Emission .....</b>	<b>11</b>
3.1. Test Limit.....	11
3.2. Test Procedures.....	11
3.3. Typical test Setup .....	12
3.4. Measurement equipment.....	12
3.5. Test Result and Data .....	13
3.6. Test Photographs.....	25
<b>4. Test of Radiated Emission .....</b>	<b>27</b>
4.1. Test Limit.....	27
4.2. Test Procedures.....	27
4.3. Typical test Setup .....	28
4.4. Measurement equipment.....	29
4.5. Test Result and Data (30MHz ~ 1000MHz).....	30
4.6. Test Result and Data (1000MHz ~ 18000MHz).....	42
4.7. Test Photographs (30MHz ~ 1000MHz) .....	54
4.8. Test Photographs (1000MHz ~ 18000MHz) .....	56
<b>5. Photographs of EUT .....</b>	<b>58</b>



## History of this test report

■ ORIGINAL.

☐ Additional attachment as following record:

Attachment No.	Date	Description



# FCC DOC TEST REPORT

## Declaration of Conformity

According to

### 47 CFR, Part 2, Part 15, CISPR PUB. 22

Applicant : Zhejiang Dahua Vision Technology Co., Ltd.

Address : The 1<sup>st</sup> floor, building F, No.1199 Bin'an road, Changhe Street,  
Binjiang District, Hangzhou, P.R. China.

Equipment : IP CAMERA

Model No. : IPC-HDBW5100-Mercury,IPC-HDB5100-Mercury,  
IPC-HDBW5200-Mercury,IPC-HDBW5202-Mercury,  
IPC-HDB5200-Mercury,IPC-HDB5202-Mercury,  
IPC-HDBW5300-Mercury,IPC-HDBW5302-Mercury,  
IPC-HDB5300-Mercury,IPC-HDB5302-Mercury  
DH-IPC-HDBW5100-Mercury,DH-IPC-HDB5100-Mercury,  
DH-IPC-HDBW5200-Mercury,DH-IPC-HDBW5202-Mercury,  
DH-IPC-HDB5200-Mercury,DH-IPC-HDB5202-Mercury,  
DH-IPC-HDBW5300-Mercury,H-IPC-HDBW5302-Mercury,  
DH-IPC-HDB5300-Mercury,DH-IPC-HDB5302-Mercury

## I HEREBY CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4 – 2009** and the energy emitted by this equipment was **passed CISPR PUB. 22, FCC Part 15** in both radiated and conducted emission **class B** limits.

The sample was received on Jun 12, 2014 and the testing was carried out on Jun 10, 2014 at CerpPASS Technology Corp.

Signature

Hill Chen

EMC/RF B.U. Assistant Manager



## 1. Summary of Test Procedure and Test Result

Test Item	Normative References	Test Result
Conducted Emission	ANSI C63.4-2009 FCC Part 15 Subpart B	PASS
Radiated Emission	ANSI C63.4-2009 FCC Part 15 Subpart B	PASS




## 2. Test Configuration of Equipment under Test

### 2.1. Manufacturer

Zhejiang Dahua Vision Technology Co., Ltd.

The 1<sup>st</sup> floor, building F, No.1199 Bin'an road, Changhe Street, Binjiang District, Hangzhou, P.R. China.

### 2.2. Feature of Equipment under Test

IP CAMERA	Model No.:	IPC-HDBW5100-Mercury,IPC-HDB5100-Mercury, IPC-HDBW5200-Mercury,IPC-HDBW5202-Mercury, IPC-HDB5200-Mercury,IPC-HDB5202-Mercury, IPC-HDBW5300-Mercury,IPC-HDBW5302-Mercury, IPC-HDB5300-Mercury,IPC-HDB5302-Mercury DH-IPC-HDBW5100-Mercury,DH-IPC-HDB5100-Mercury, DH-IPC-HDBW5200-Mercury,DH-IPC-HDBW5202-Mercury, DH-IPC-HDB5200-Mercury,DH-IPC-HDB5202-Mercury, DH-IPC-HDBW5300-Mercury,H-IPC-HDBW5302-Mercury, DH-IPC-HDB5300-Mercury,DH-IPC-HDB5302-Mercury
Remark	<b>IPC-HDBW5302-Mercury, IPC-HDBW5202-Mercury, IPC-HDBW5100-Mercury</b> was selected as the test model and its data have been recorded in this report.	
Adapter 1	Model No.:	ADS-12B-12 12012Gz
	Input :	100-240V~ 50/60Hz Max.0.3A
	Output :	12V  1.0A
Adapter 2	Model No.:	A12-3A-10
	Input :	120V~ 60Hz 46W
	Output :	24VAC~1500mA



## Models' Differences:

Model No	Differences
IPC-HDBW5100-Mercury	Differences between the models, unlike the main measuring model sensor plate and a lens, the light board, the motherboard also has small differences, no power zoom function
IPC-HDB5100-Mercury	Compared to HDBW5100, no infrared light board
IPC-HDBW5200-Mercury	Compared to HDBW5202, infrared light board, no motorized zoom function
IPC-HDBW5202-Mercury	Differences between the models, unlike the main measuring model sensor plate and a lens
IPC-HDB5200-Mercury	Compared to HDBW5202, no infrared light board, no motorized zoom function
IPC-HDB5202-Mercury	Compared to HDBW5202, no infrared light board
IPC-HDBW5300-Mercury	No motorized zoom
IPC-HDBW5302-Mercury	Test model
IPC-HDB5300-Mercury	Infrared light board lack of hardware, no motorized zoom
IPC-HDB5302-Mercury	Infrared light board lack of hardware
DH-IPC-HDBW5100-Mercury	with "DH" have dahua logo.
DH-IPC-HDB5100-Mercury	
DH-IPC-HDBW5200-Mercury	
DH-IPC-HDBW5202-Mercury	
DH-IPC-HDB5200-Mercury	
DH-IPC-HDB5202-Mercury	
DH-IPC-HDBW5300-Mercury	
DH-IPC-HDBW5302-Mercury	
DH-IPC-HDB5300-Mercury	
DH-IPC-HDB5302-Mercury	



### 2.3. Test Manner

- a During testing, the interface cables and equipment positions were varied according to ANSI C63.4-2009
- b Turn on the power of all equipment.
- c The complete test system included Notebook PC and EUT for EMI test.

#### **The pre-test modes**

Test Mode 1: Normal Operation for IPC-HDBW5100-Mercury with ADS-12B-12 12012Gz

Test Mode 2: Normal Operation for IPC-HDBW5202-Mercury with ADS-12B-12 12012Gz

Test Mode 3: Normal Operation for IPC-HDBW5302-Mercury with ADS-12B-12 12012Gz

Test Mode 4: Normal Operation for IPC-HDBW5100-Mercury with A12-3A-10

Test Mode 5: Normal Operation for IPC-HDBW5202-Mercury with A12-3A-10

Test Mode 6: Normal Operation for IPC-HDBW5302-Mercury with A12-3A-10

#### **Select the worst case of the pre-test modes as the final test mode**

Test Mode 1: Normal Operation for IPC-HDBW5100-Mercury with ADS-12B-12 12012Gz

Test Mode 2: Normal Operation for IPC-HDBW5202-Mercury with ADS-12B-12 12012Gz

Test Mode 3: Normal Operation for IPC-HDBW5302-Mercury with ADS-12B-12 12012Gz

Test Mode 4: Normal Operation for IPC-HDBW5100-Mercury with A12-3A-10

Test Mode 5: Normal Operation for IPC-HDBW5202-Mercury with A12-3A-10

Test Mode 6: Normal Operation for IPC-HDBW5302-Mercury with A12-3A-10





## 2.4. Description of Test System

No.	Device	Manufacturer	Model No.	Description
1	Notebook PC	SONY	PCG-71811P	Non-Shielded,1.5m (R33021)

No.	Cable	Quantity	Description
A	LAN Cable	1	Non-Shielded,>3.0m



## 2.5. General Information of Test

Test Site :	Cerpass Technology Corporation Test Laboratory No.10, Lane 2, Lianfu Street, Luzhu Township, Taoyuan County 33848, Taiwan(R.O.C.)
Test Site :	No.68-1, Shihbachongsi, Shihding Township, Taipei City 223, Taiwan, R.O.C.
FCC Registration Number :	TW1049, TW1061
IC Registration Number :	4934B-1, 4934D-1
VCCI Registration Number :	T-1173 for Telecommunication Test C-4139 for Conducted emission test R-3428 for Radiated emission test G-97 for radiated disturbance above 1GHz
Frequency Range Investigated :	Conducted Emission Test: from 150 kHz to 30 MHz Radiated Emission Test: from 30 MHz to 6,000 MHz
Test Distance :	The test distance of radiated emission below 1GHz from antenna to EUT is 10 M. The test distance of radiated emission above 1GHz from antenna to EUT is 3 M.

## 2.6. Measurement Uncertainty

Measurement Item	Measurement Frequency	Polarization	Uncertainty
Conducted Emission	9 kHz ~ 30 MHz	LINE / NEUTRAL	3.25 dB
Radiated Emission	30 MHz ~ 1,000 MHz	Vertical / Horizontal	3.93 dB
	1,000 MHz ~ 18,000 MHz	Vertical / Horizontal	5.18 dB

The measurement uncertainty will be considered, when test result margin to the limit.



### 3. Test of Conducted Emission

#### 3.1. Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 120 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-2009 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 2.2. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

#### Conducted Emission Limits:

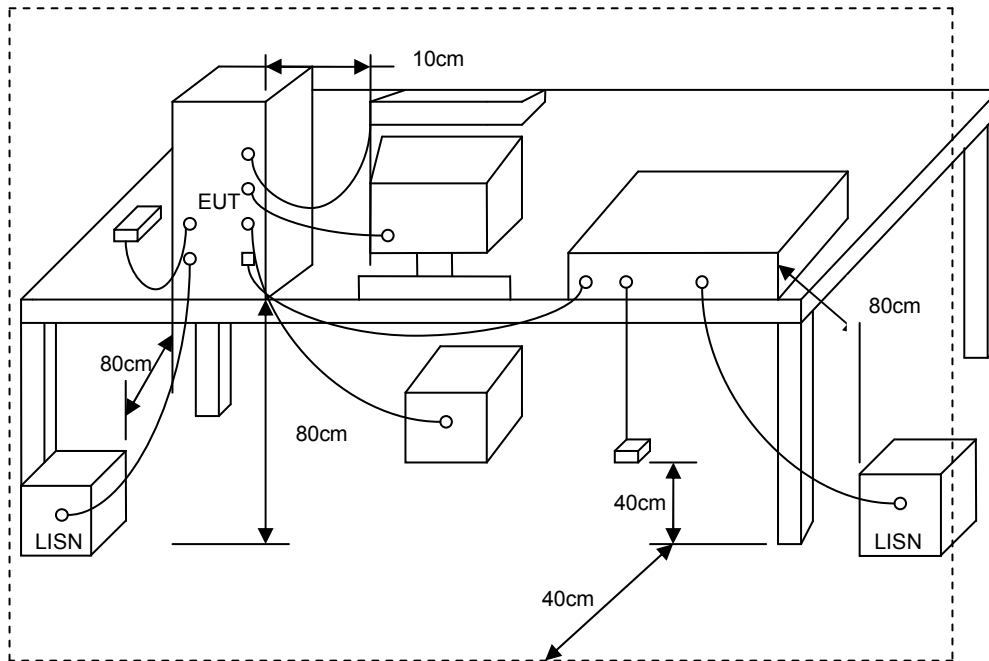
Frequency (MHz)	Quasi Peak (dB $\mu$ V)	Average (dB $\mu$ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

#### 3.2. Test Procedures

- The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- Connect EUT to the power mains through a line impedance stabilization network (LISN).
- All the support units are connecting to the other LISN.
- The LISN provides 50 ohm coupling impedance for the measuring instrument.
- The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
- Both sides of AC line were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched.
- Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.



### 3.3. Typical test Setup



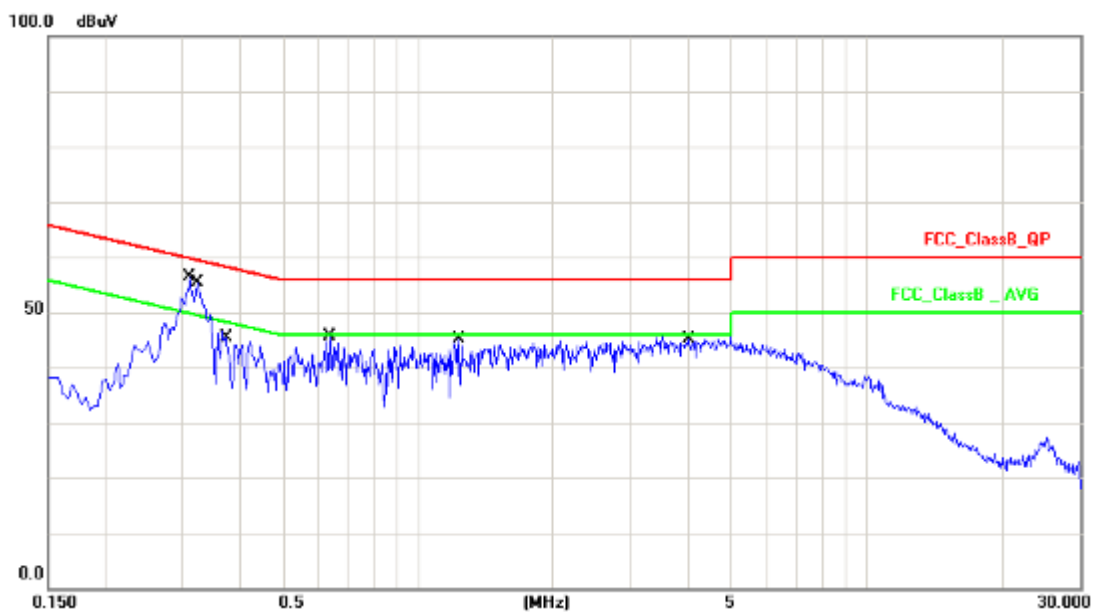
### 3.4. Measurement equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
Test Receiver	R&S	ESCI	100565	2014.03.24	2015.03.23
AMN	R&S	ESH2-Z5	100182	2013.09.11	2014.09.10
Two-Line V-Network	R&S	ENV216	100325	2013.12.04	2014.12.03
ISN	FCC	FCC-TLISN-T2-02	20379	2014.03.24	2015.03.23
ISN	FCC	FCC-TLISN-T4-02	20380	2014.03.24	2015.03.23
ISN	FCC	FCC-TLISN-T8-02	20381	2014.03.24	2015.03.23
ISN	TESEQ	ISN ST08	30175	2014.03.24	2015.03.23
Current Probe	R&S	EZ-17	100303	2014.04.04	2015.04.03
Passive Voltage Probe	R&S	ESH2-Z3	100026	2014.03.24	2015.03.23
Pulse Limiter	R&S	ESH3-Z2	100529	2014.03.24	2015.03.23
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-004	2014.03.31	2015.03.30
EZ-EMC	Fala	Ver CT3A1	N/A	N/A	N/A



### 3.5. Test Result and Data

Test Mode :	Mode 1: Normal Operation for IPC-HDBW5100-Mercury with ADS-12B-12 12012Gz		
AC Power :	AC 120V/60Hz	Phase :	LINE
Equipment :	IP Camera	Model No :	IPC-HDBW5100-Mercury
Temperature :	23℃	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/06/30

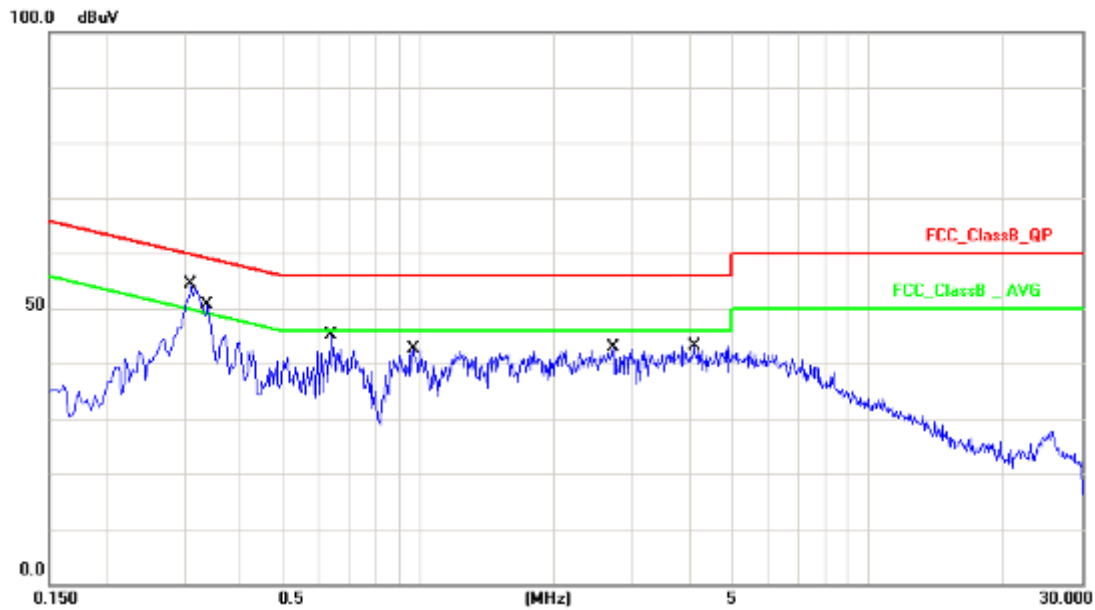


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.3100	10.14	42.98	53.12	59.97	-6.85	QP
2	0.3100	10.14	30.99	41.13	49.97	-8.84	AVG
3	0.3260	10.14	42.32	52.46	59.55	-7.09	QP
4	0.3260	10.14	31.75	41.89	49.55	-7.66	AVG
5	0.3740	10.15	33.89	44.04	58.41	-14.37	QP
6	0.3740	10.15	24.40	34.55	48.41	-13.86	AVG
7	0.6340	10.15	30.82	40.97	56.00	-15.03	QP
8	0.6340	10.15	19.13	29.28	46.00	-16.72	AVG
9	1.2420	10.16	30.44	40.60	56.00	-15.40	QP
10	1.2420	10.16	20.47	30.63	46.00	-15.37	AVG
11	4.0140	10.20	29.20	39.40	56.00	-16.60	QP
12	4.0140	10.20	19.84	30.04	46.00	-15.96	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 1: Normal Operation for IPC-HDBW5100-Mercury with ADS-12B-12 12012Gz		
AC Power :	AC 120V/60Hz	Phase :	NEUTRAL
Equipment :	IP CAMERA	Model No :	IPC-HDBW5100-Mercury
Temperature :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/06/30

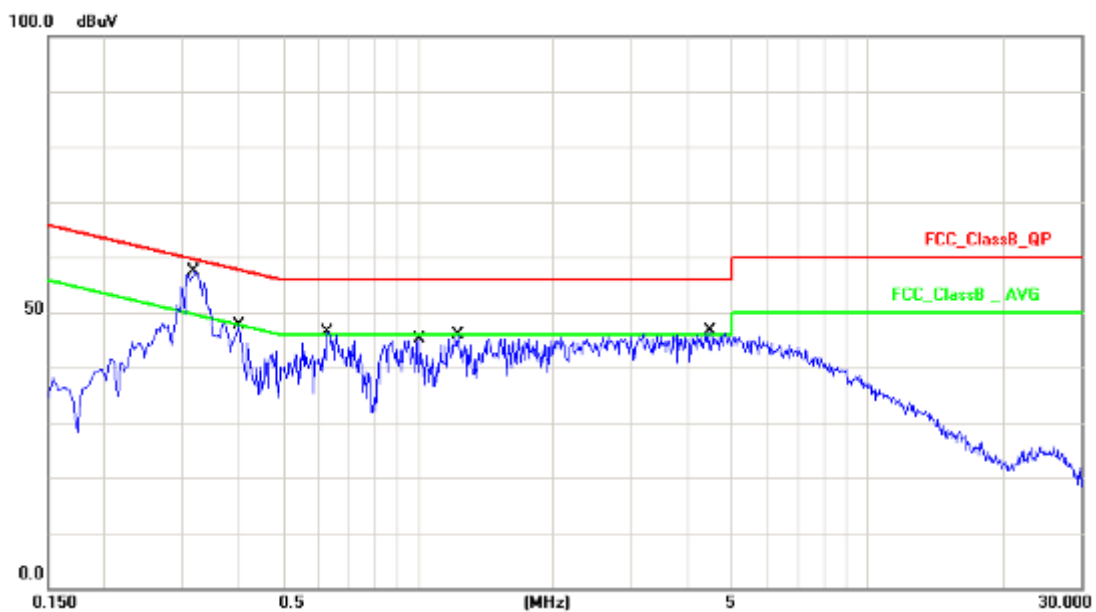


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.3100	10.14	39.97	50.11	59.97	-9.86	QP
2	0.3100	10.14	29.91	40.05	49.97	-9.92	AVG
3	0.3379	10.14	36.07	46.21	59.25	-13.04	QP
4	0.3379	10.14	26.80	36.94	49.25	-12.31	AVG
5	0.6380	10.16	28.04	38.20	56.00	-17.80	QP
6	0.6380	10.16	19.40	29.56	46.00	-16.44	AVG
7	0.9700	10.18	28.43	38.61	56.00	-17.39	QP
8	0.9700	10.18	19.90	30.08	46.00	-15.92	AVG
9	2.7139	10.19	26.77	36.96	56.00	-19.04	QP
10	2.7139	10.19	17.27	27.46	46.00	-18.54	AVG
11	4.0939	10.22	26.15	36.37	56.00	-19.63	QP
12	4.0939	10.22	17.69	27.91	46.00	-18.09	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 2: Normal Operation for IPC-HDBW5202-Mercury with ADS-12B-12 12012Gz		
AC Power :	AC 120V/60Hz	Phase :	LINE
Equipment :	IP Camera	Model No :	IPC-HDBW5202-Mercury
Temperature :	23℃	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/06/30

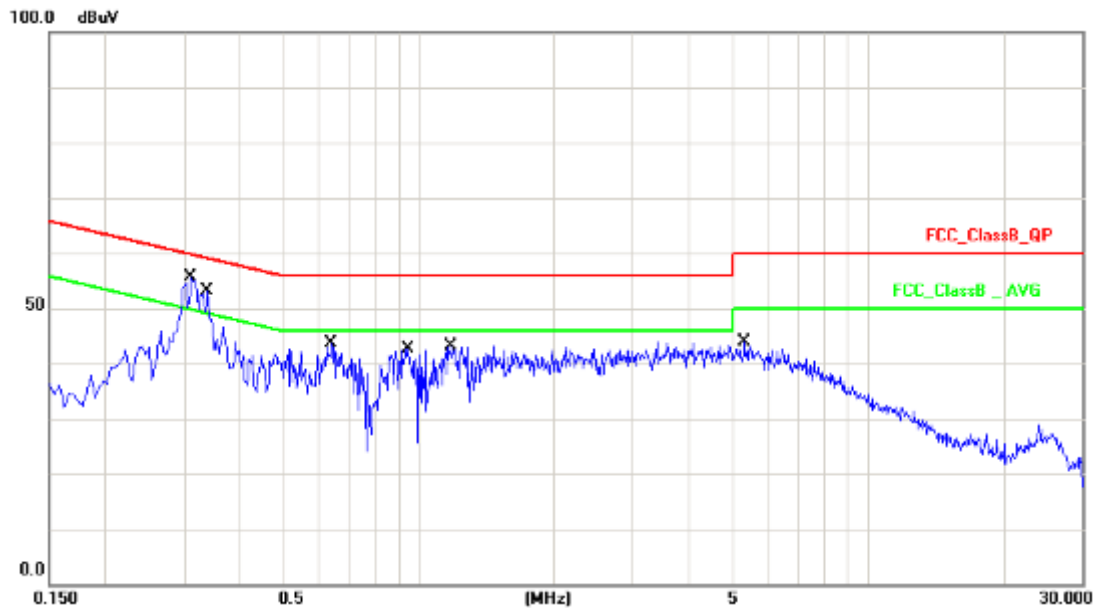


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.3180	10.14	44.60	54.74	59.76	-5.02	QP
2	0.3180	10.14	33.53	43.67	49.76	-6.09	AVG
3	0.3980	10.15	33.42	43.57	57.89	-14.32	QP
4	0.3980	10.15	22.01	32.16	47.89	-15.73	AVG
5	0.6300	10.15	32.39	42.54	56.00	-13.46	QP
6	0.6300	10.15	20.15	30.30	46.00	-15.70	AVG
7	1.0100	10.16	28.66	38.82	56.00	-17.18	QP
8	1.0100	10.16	15.81	25.97	46.00	-20.03	AVG
9	1.2260	10.16	30.35	40.51	56.00	-15.49	QP
10	1.2260	10.16	19.16	29.32	46.00	-16.68	AVG
11	4.4699	10.22	29.81	40.03	56.00	-15.97	QP
12	4.4699	10.22	20.30	30.52	46.00	-15.48	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 2: Normal Operation for IPC-HDBW5202-Mercury with ADS-12B-12 12012Gz		
AC Power :	AC 120V/60Hz	Phase :	NEUTRAL
Equipment :	IP CAMERA	Model No :	IPC-HDBW5202-Mercury
Temperature :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/06/30



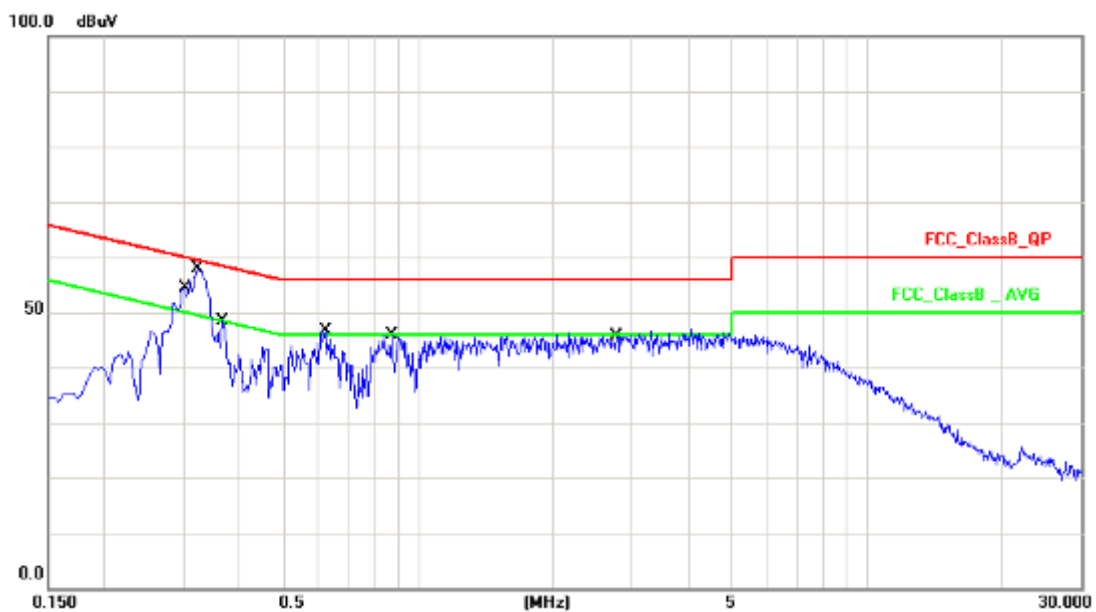
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.3100	10.14	40.87	51.01	59.97	-8.96	QP
2	0.3100	10.14	32.26	42.40	49.97	-7.57	AVG
3	0.3379	10.14	38.19	48.33	59.25	-10.92	QP
4	0.3379	10.14	30.09	40.23	49.25	-9.02	AVG
5	0.6419	10.16	29.70	39.86	56.00	-16.14	QP
6	0.6419	10.16	20.95	31.11	46.00	-14.89	AVG
7	0.9460	10.17	29.19	39.36	56.00	-16.64	QP
8	0.9460	10.17	20.30	30.47	46.00	-15.53	AVG
9	1.1820	10.18	29.03	39.21	56.00	-16.79	QP
10	1.1820	10.18	19.97	30.15	46.00	-15.85	AVG
11	5.3220	10.26	26.29	36.55	60.00	-23.45	QP
12	5.3220	10.26	18.42	28.68	50.00	-21.32	AVG

Note: Measurement Level = Reading Level + Correct Factor





Test Mode :	Mode 3: Normal Operation for IPC-HDBW5302-Mercury with ADS-12B-12 12012Gz		
AC Power :	AC 120V/60Hz	Phase :	LINE
Equipment :	IP Camera	Model No :	IPC-HDBW5302-Mercury
Temperature :	23℃	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/06/30

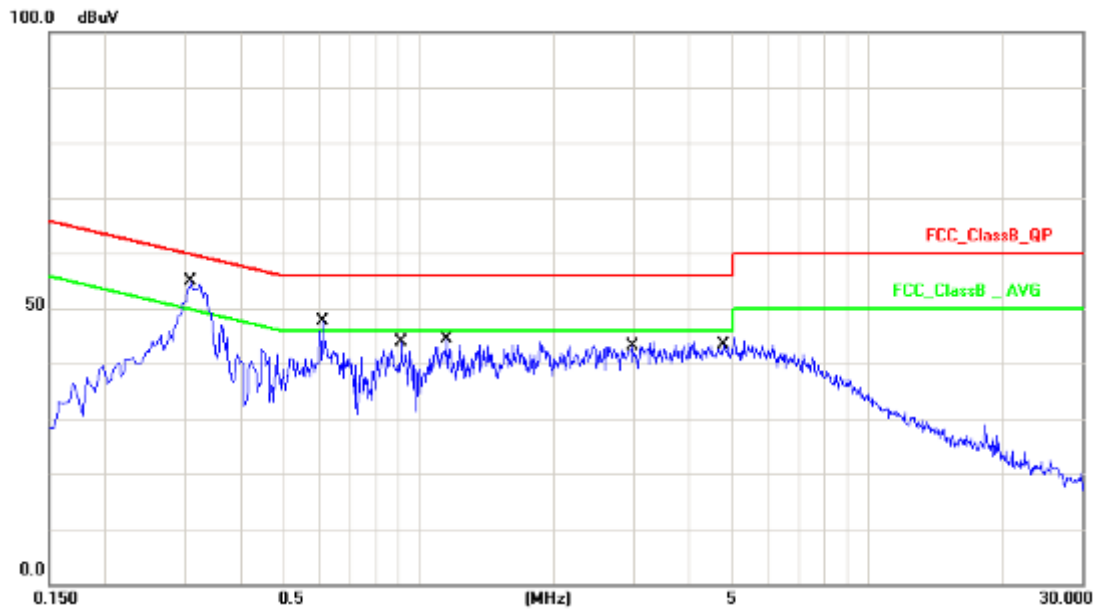


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.3020	10.14	42.12	52.26	60.19	-7.93	QP
2	0.3020	10.14	30.75	40.89	50.19	-9.30	AVG
3	0.3220	10.14	44.10	54.24	59.65	-5.41	QP
4	0.3220	10.14	31.96	42.10	49.65	-7.55	AVG
5	0.3660	10.15	35.88	46.03	58.59	-12.56	QP
6	0.3660	10.15	25.70	35.85	48.59	-12.74	AVG
7	0.6220	10.15	33.04	43.19	56.00	-12.81	QP
8	0.6220	10.15	21.94	32.09	46.00	-13.91	AVG
9	0.8740	10.15	29.95	40.10	56.00	-15.90	QP
10	0.8740	10.15	19.74	29.89	46.00	-16.11	AVG
11	2.7740	10.18	29.44	39.62	56.00	-16.38	QP
12	2.7740	10.18	19.61	29.79	46.00	-16.21	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 3: Normal Operation for IPC-HDBW5302-Mercury with ADS-12B-12 12012Gz		
AC Power :	AC 120V/60Hz	Phase :	NEUTRAL
Equipment :	IP CAMERA	Model No :	IPC-HDBW5302-Mercury
Temperature :	23℃	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/06/30

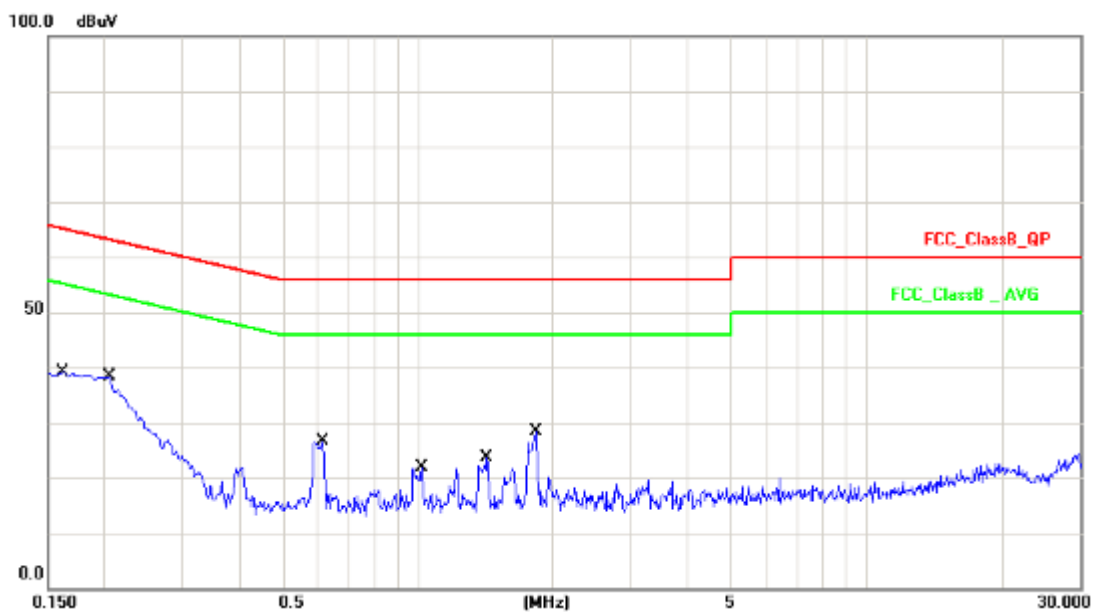


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.3100	10.14	40.67	50.81	59.97	-9.16	QP
2	0.3100	10.14	32.47	42.61	49.97	-7.36	AVG
3	0.6100	10.16	30.04	40.20	56.00	-15.80	QP
4	0.6100	10.16	20.25	30.41	46.00	-15.59	AVG
5	0.9140	10.17	28.93	39.10	56.00	-16.90	QP
6	0.9140	10.17	19.46	29.63	46.00	-16.37	AVG
7	1.1539	10.18	28.95	39.13	56.00	-16.87	QP
8	1.1539	10.18	19.78	29.96	46.00	-16.04	AVG
9	2.9900	10.20	26.77	36.97	56.00	-19.03	QP
10	2.9900	10.20	18.86	29.06	46.00	-16.94	AVG
11	4.7700	10.26	26.17	36.43	56.00	-19.57	QP
12	4.7700	10.26	18.58	28.84	46.00	-17.16	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 4: Normal Operation for IPC-HDBW5100-Mercury with A12-3A-10		
AC Power :	AC 120V/60Hz	Phase :	LINE
Equipment :	IP Camera	Model No :	IPC-HDBW5100-Mercury
Temperature :	23℃	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/12

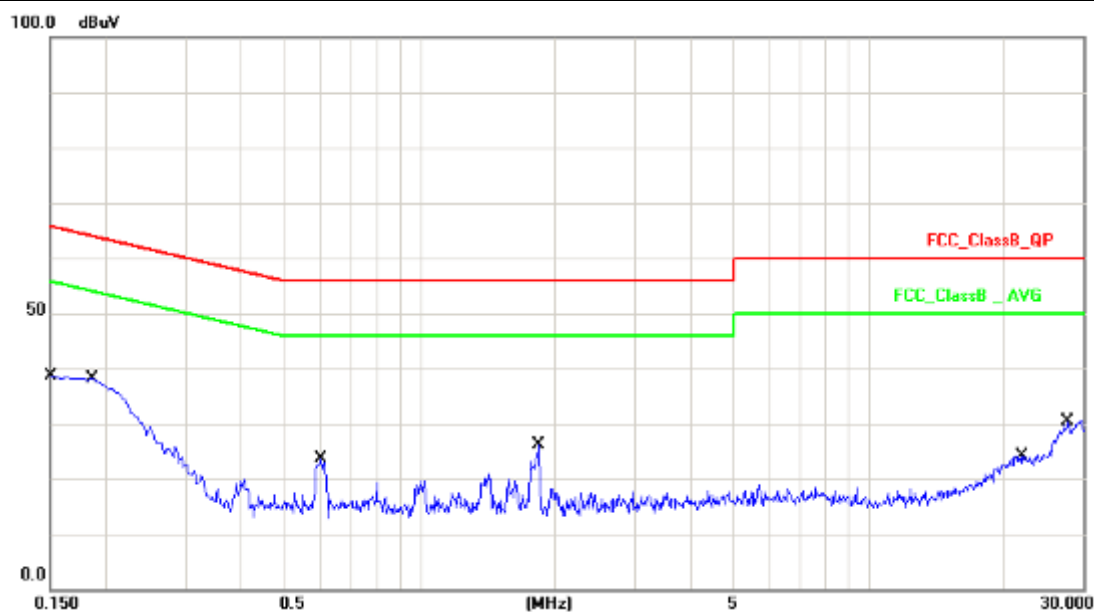


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1620	10.13	21.37	31.50	65.36	-33.86	QP
2	0.1620	10.13	-0.42	9.71	55.36	-45.65	AVG
3	0.2060	10.12	21.78	31.90	63.36	-31.46	QP
4	0.2060	10.12	13.10	23.22	53.36	-30.14	AVG
5	0.6140	10.15	12.87	23.02	56.00	-32.98	QP
6	0.6140	10.15	4.47	14.62	46.00	-31.38	AVG
7	1.0220	10.16	7.63	17.79	56.00	-38.21	QP
8	1.0220	10.16	0.70	10.86	46.00	-35.14	AVG
9	1.4299	10.16	9.38	19.54	56.00	-36.46	QP
10	1.4299	10.16	1.82	11.98	46.00	-34.02	AVG
11	1.8380	10.17	14.95	25.12	56.00	-30.88	QP
12	1.8380	10.17	5.64	15.81	46.00	-30.19	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 4: Normal Operation for IPC-HDBW5100-Mercury with A12-3A-10		
AC Power :	AC 120V/60Hz	Phase :	NEUTRAL
Equipment :	IP CAMERA	Model No :	IPC-HDBW5100-Mercury
Temperature :	23℃	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/12

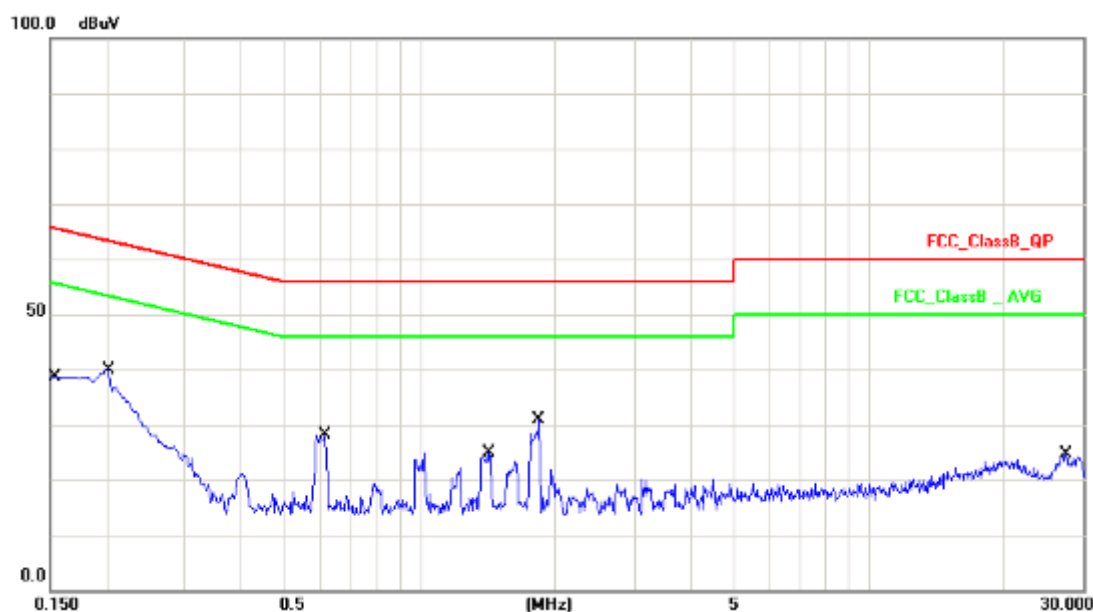


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1500	10.13	21.44	31.57	65.99	-34.42	QP
2	0.1500	10.13	-0.02	10.11	55.99	-45.88	AVG
3	0.1860	10.13	21.05	31.18	64.21	-33.03	QP
4	0.1860	10.13	-0.52	9.61	54.21	-44.60	AVG
5	0.6020	10.16	7.75	17.91	56.00	-38.09	QP
6	0.6020	10.16	3.03	13.19	46.00	-32.81	AVG
7	1.8420	10.18	10.50	20.68	56.00	-35.32	QP
8	1.8420	10.18	2.14	12.32	46.00	-33.68	AVG
9	21.9180	10.40	8.67	19.07	60.00	-40.93	QP
10	21.9180	10.40	4.32	14.72	50.00	-35.28	AVG
11	27.7540	10.31	16.40	26.71	60.00	-33.29	QP
12	27.7540	10.31	11.84	22.15	50.00	-27.85	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 5: Normal Operation for IPC-HDBW5202-Mercury with A12-3A-10		
AC Power :	AC 120V/60Hz	Phase :	LINE
Equipment :	IP Camera	Model No :	IPC-HDBW5202-Mercury
Temperature :	23℃	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/12

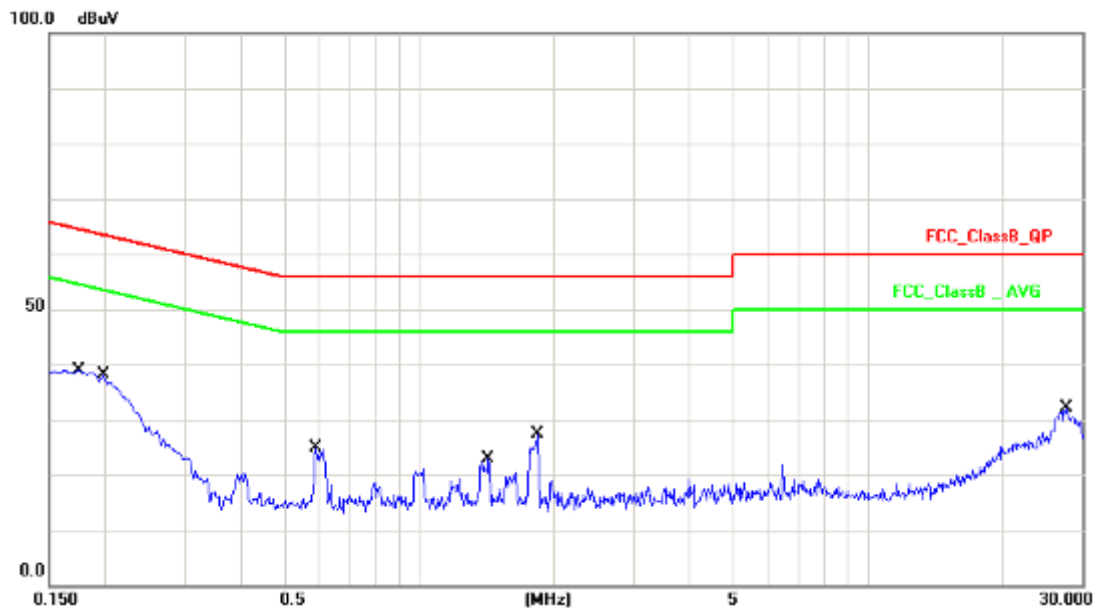


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1539	10.13	21.71	31.84	65.78	-33.94	QP
2	0.1539	10.13	0.05	10.18	55.78	-45.60	AVG
3	0.2020	10.12	22.67	32.79	63.52	-30.73	QP
4	0.2020	10.12	18.30	28.42	53.52	-25.10	AVG
5	0.6140	10.15	14.96	25.11	56.00	-30.89	QP
6	0.6140	10.15	6.20	16.35	46.00	-29.65	AVG
7	1.4299	10.16	11.84	22.00	56.00	-34.00	QP
8	1.4299	10.16	3.56	13.72	46.00	-32.28	AVG
9	1.8420	10.17	16.93	27.10	56.00	-28.90	QP
10	1.8420	10.17	6.81	16.98	46.00	-29.02	AVG
11	27.5380	10.44	9.93	20.37	60.00	-39.63	QP
12	27.5380	10.44	5.31	15.75	50.00	-34.25	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 5: Normal Operation for IPC-HDBW5202-Mercury with A12-3A-10		
AC Power :	AC 120V/60Hz	Phase :	NEUTRAL
Equipment :	IP CAMERA	Model No :	IPC-HDBW5202-Mercury
Temperature :	23℃	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/12

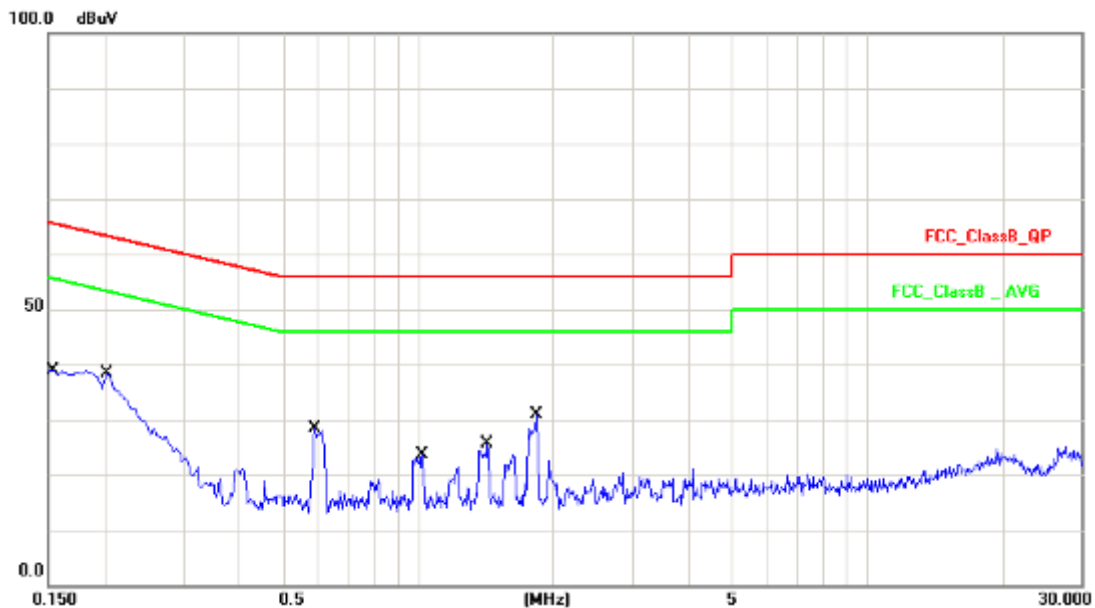


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1740	10.13	21.44	31.57	64.76	-33.19	QP
2	0.1740	10.13	-0.39	9.74	54.76	-45.02	AVG
3	0.1980	10.13	21.25	31.38	63.69	-32.31	QP
4	0.1980	10.13	13.85	23.98	53.69	-29.71	AVG
5	0.5899	10.15	11.70	21.85	56.00	-34.15	QP
6	0.5899	10.15	4.21	14.36	46.00	-31.64	AVG
7	1.4299	10.18	8.19	18.37	56.00	-37.63	QP
8	1.4299	10.18	1.05	11.23	46.00	-34.77	AVG
9	1.8420	10.18	13.16	23.34	56.00	-32.66	QP
10	1.8420	10.18	3.95	14.13	46.00	-31.87	AVG
11	27.7820	10.31	18.20	28.51	60.00	-31.49	QP
12	27.7820	10.31	13.81	24.12	50.00	-25.88	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 6: Normal Operation for IPC-HDBW5302-Mercury with A12-3A-10		
AC Power :	AC 120V/60Hz	Phase :	LINE
Equipment :	IP Camera	Model No :	IPC-HDBW5302-Mercury
Temperature :	23℃	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/12

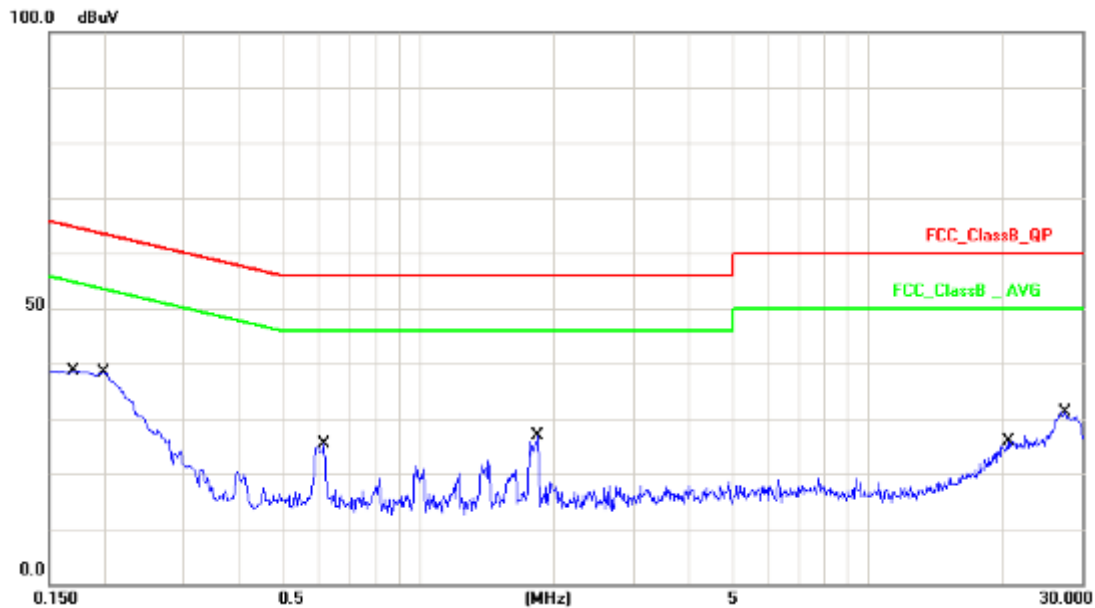


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1539	10.13	21.36	31.49	65.78	-34.29	QP
2	0.1539	10.13	0.04	10.17	55.78	-45.61	AVG
3	0.2020	10.12	22.83	32.95	63.52	-30.57	QP
4	0.2020	10.12	18.40	28.52	53.52	-25.00	AVG
5	0.5899	10.16	16.14	26.30	56.00	-29.70	QP
6	0.5899	10.16	8.16	18.32	46.00	-27.68	AVG
7	1.0220	10.16	10.30	20.46	56.00	-35.54	QP
8	1.0220	10.16	2.53	12.69	46.00	-33.31	AVG
9	1.4299	10.16	11.84	22.00	56.00	-34.00	QP
10	1.4299	10.16	3.57	13.73	46.00	-32.27	AVG
11	1.8420	10.17	16.98	27.15	56.00	-28.85	QP
12	1.8420	10.17	6.80	16.97	46.00	-29.03	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 6: Normal Operation for IPC-HDBW5302-Mercury with A12-3A-10		
AC Power :	AC 120V/60Hz	Phase :	NEUTRAL
Equipment :	IP CAMERA	Model No :	IPC-HDBW5302-Mercury
Temperature :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/12



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1700	10.13	21.55	31.68	64.96	-33.28	QP
2	0.1700	10.13	-0.35	9.78	54.96	-45.18	AVG
3	0.1980	10.13	21.30	31.43	63.69	-32.26	QP
4	0.1980	10.13	13.83	23.96	53.69	-29.73	AVG
5	0.6140	10.16	10.84	21.00	56.00	-35.00	QP
6	0.6140	10.16	2.83	12.99	46.00	-33.01	AVG
7	1.8420	10.18	13.16	23.34	56.00	-32.66	QP
8	1.8420	10.18	3.89	14.07	46.00	-31.93	AVG
9	20.5580	10.44	9.87	20.31	60.00	-39.69	QP
10	20.5580	10.44	5.54	15.98	50.00	-34.02	AVG
11	27.5420	10.31	16.84	27.15	60.00	-32.85	QP
12	27.5420	10.31	12.25	22.56	50.00	-27.44	AVG

Note: Measurement Level = Reading Level + Correct Factor

Test engineer: Dian





### 3.6. Test Photographs

ADS-12B-12 12012Gz

Front View



Rear View





A12-3A-10

Front View



Rear View





## 4. Test of Radiated Emission

### 4.1. Test Limit

Radiated emissions were measured with a bandwidth according to the methods defines in ANSI C63.4-2009. The EUT was placed on a nonmetallic stand in the open-field site, 0.8 meter above the ground plane, as shown in section 3.2. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions.

For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency (MHz)	Distance Meters	Radiated ( $\mu$ V / M)	Radiated (dB $\mu$ V/ M)
30-88	3	100	40.0
88-216	3	150	43.5
216-960	3	200	46.0
Above 960	3	500	54.0

For unintentional device, according to CISPR PUB.22, for Class B digital devices, the general requirement of field strength of radiated emissions from intentional radiators at a distance of 10 meters shall not exceed the below table.

Frequency (MHz)	Distance Meters	Radiated (dB $\mu$ V/ M)
30-230	10	30
230-1000	10	37

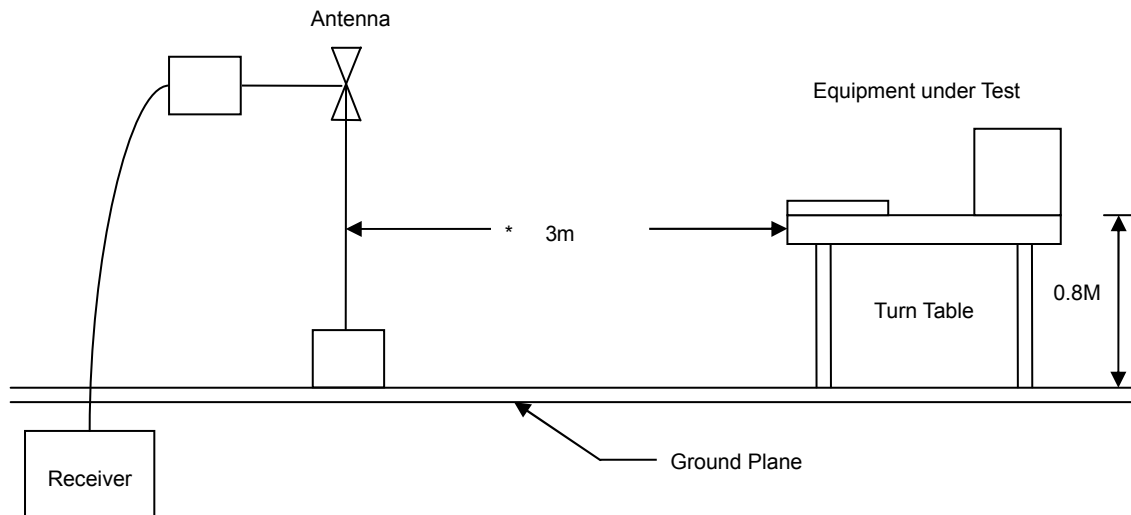
### 4.2. Test Procedures

- The EUT was placed on a Rota table top 0.8 meter above ground.
- The EUT was set 3/10 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- The table was rotated 360 degrees to determine the position of the highest radiation.
- The antenna is a half wave dipole and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
- For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
- Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 6 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 6 dB margin will be repeated one by one using the quasi-peak method and reported.

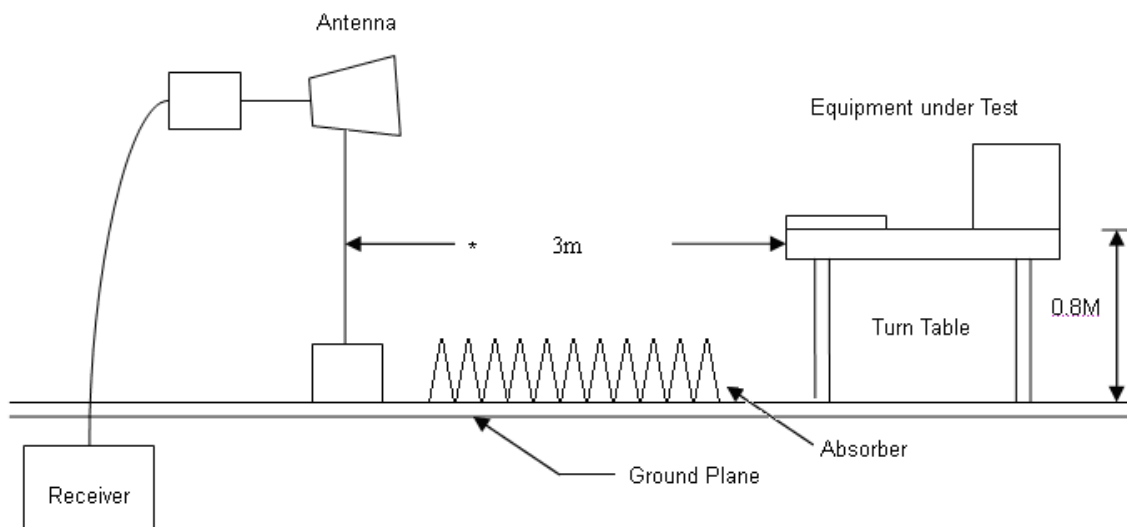


### 4.3. Typical test Setup

#### Below 1GHz Test Setup



#### Above 1GHz Test Setup

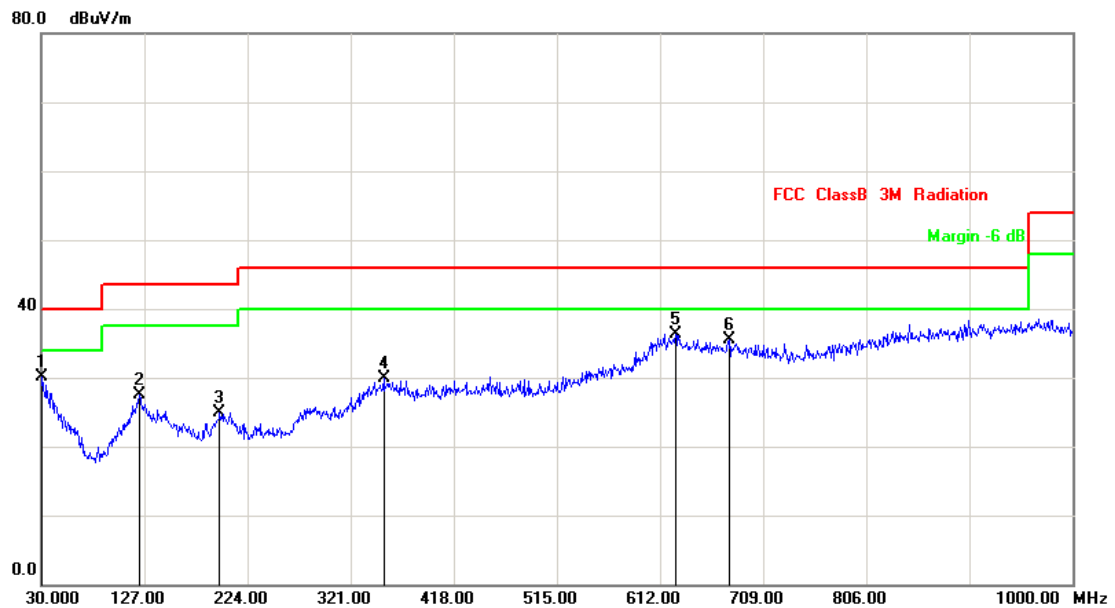


**4.4. Measurement equipment**

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
EMI Test Receiver	R&S	ESCI	100563	2014.02.10	2015.02.09
H64 Preamplifier	HP	8447F	3113A05582	2014.03.24	2015.03.23
Preamplifier	Agilent	8449B	3008A02342	2014.03.24	2015.03.23
Ultra Broadband Antenna	R&S	HL562	100362	2014.05.24	2015.05.23
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	9120D-619	2014.05.24	2015.05.23
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	9170-348	2013.11.04	2014.11.03
Spectrum Analyzer	R&S	FSP40	100324	2014.03.23	2015.03.24
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-002	2014.03.31	2015.03.30
EZ-EMC	Fala	Ver CT3A1	N/A	N/A	N/A

**4.5. Test Result and Data (30MHz ~ 1000MHz)**

Test Mode :	Mode 1: Normal Operation for IPC-HDBW5100-Mercury with ADS-12B-12 12012Gz		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Horizontal
Equipment :	IP Camera	Model No :	IPC-HDBW5100-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/10



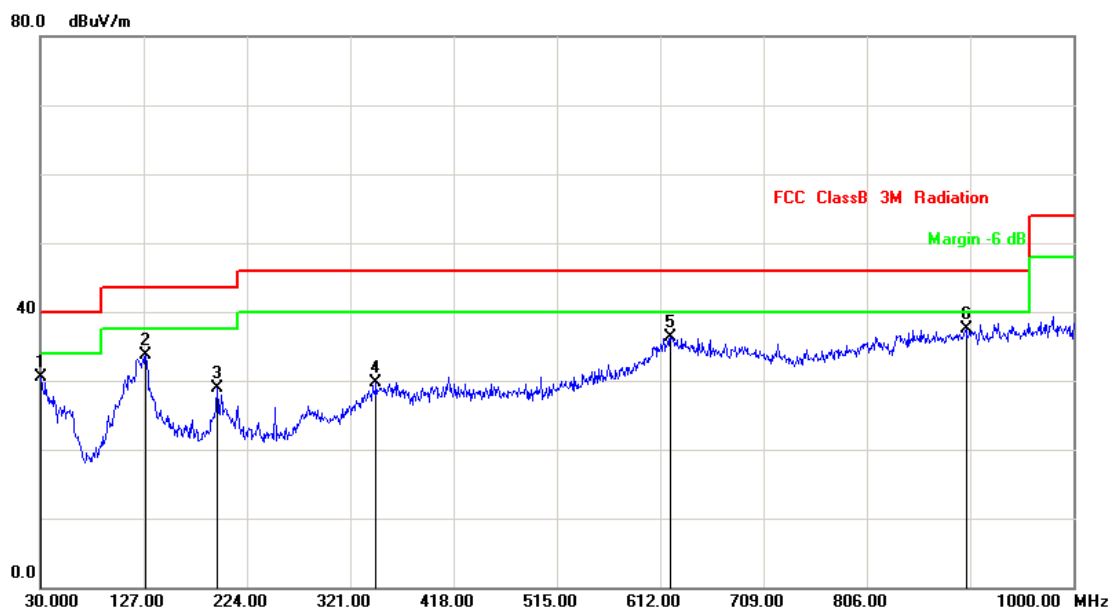
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	30.9699	4.25	25.81	30.06	40.00	-9.94	QP	100	360
2	122.1500	0.18	27.26	27.44	43.50	-16.06	QP	200	262
3	197.8100	-0.26	25.13	24.87	43.50	-18.63	QP	100	244
4	352.0400	4.86	25.04	29.90	46.00	-16.10	QP	400	25
5	626.5499	11.26	25.03	36.29	46.00	-9.71	QP	400	139
6	676.9900	10.13	25.28	35.41	46.00	-10.59	QP	100	295

Note: Measurement Level = Reading Level + Correct Factor





Test Mode :	Mode 1: Normal Operation for IPC-HDBW5100-Mercury with ADS-12B-12 12012Gz		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Vertical
Equipment :	IP Camera	Model No :	IPC-HDBW5100-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/10

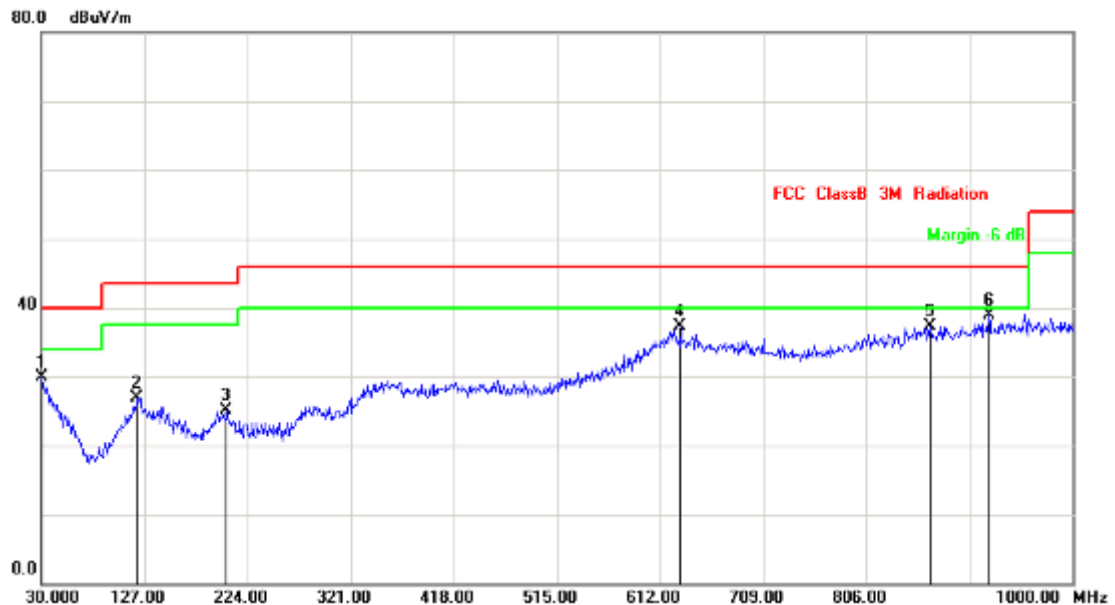


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	30.9699	4.25	26.16	30.41	40.00	-9.59	QP	200	156
2	128.9400	0.18	33.52	33.70	43.50	-9.80	QP	100	201
3	195.8700	-0.53	29.39	28.86	43.50	-14.64	QP	100	52
4	345.2500	4.61	25.13	29.74	46.00	-16.26	QP	100	0
5	621.7000	11.39	24.84	36.23	46.00	-9.77	QP	100	253
6	899.1200	12.23	25.19	37.42	46.00	-8.58	QP	400	147

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 2: Normal Operation for IPC-HDBW5202-Mercury with ADS-12B-12 12012Gz		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Horizontal
Equipment :	IP Camera	Model No :	IPC-HDBW5202-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/10



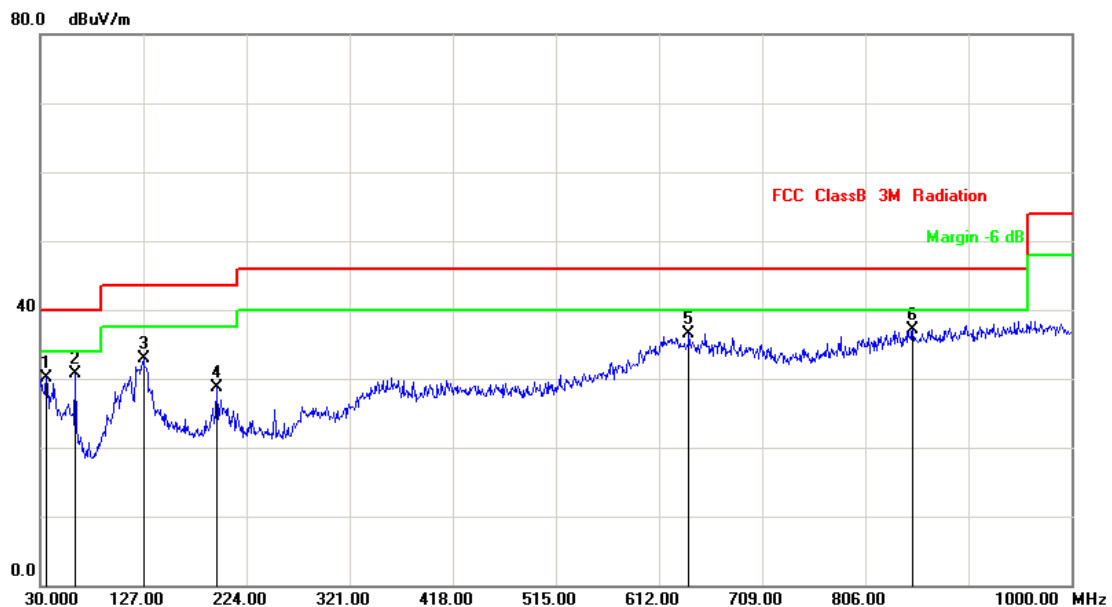
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	30.0000	4.52	25.39	29.91	40.00	-10.09	QP	100	222
2	120.2099	0.18	26.73	26.91	43.50	-16.59	QP	100	35
3	204.5999	-0.48	25.53	25.05	43.50	-18.45	QP	100	226
4	631.3999	11.12	26.09	37.21	46.00	-8.79	QP	400	16
5	866.1399	11.98	25.27	37.25	46.00	-8.75	QP	400	145
6	921.4298	12.39	26.60	38.99	46.00	-7.01	QP	100	25

Note: Measurement Level = Reading Level + Correct Factor





Test Mode :	Mode 2: Normal Operation for IPC-HDBW5202-Mercury with ADS-12B-12 12012Gz		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Vertical
Equipment :	IP Camera	Model No :	IPC-HDBW5202-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/10

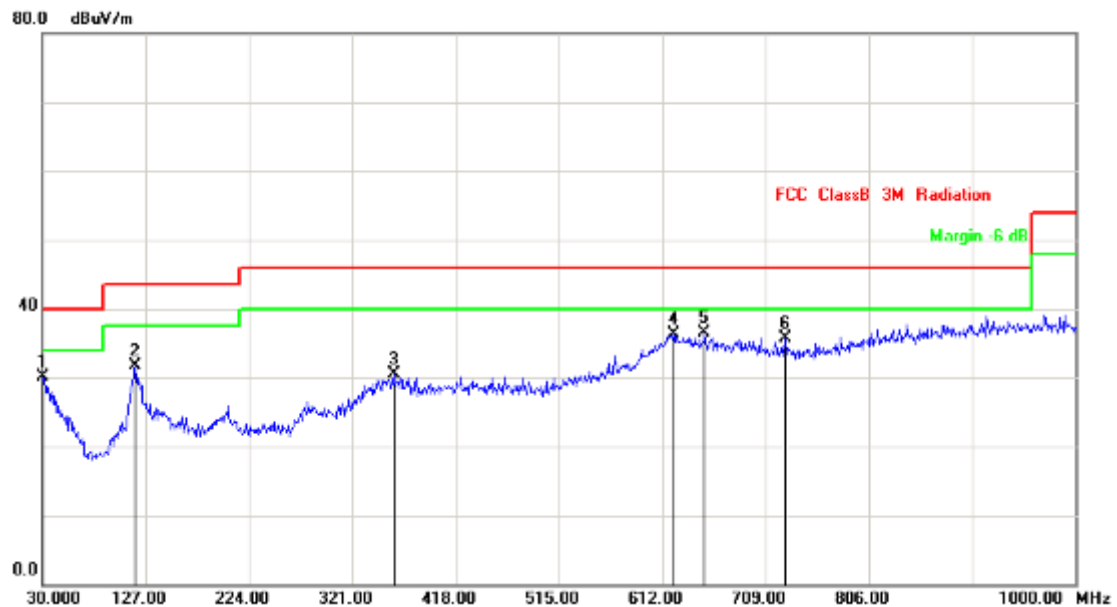


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	35.8200	2.91	27.25	30.16	40.00	-9.84	QP	100	52
2	62.9800	-3.55	34.19	30.64	40.00	-9.36	QP	100	287
3	127.0000	0.18	32.73	32.91	43.50	-10.59	QP	100	46
4	195.8700	-0.53	29.27	28.74	43.50	-14.76	QP	100	234
5	640.1300	10.88	25.61	36.49	46.00	-9.51	QP	100	191
6	850.6200	11.70	25.41	37.11	46.00	-8.89	QP	400	20

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 3: Normal Operation for IPC-HDBW5302-Mercury with ADS-12B-12 12012Gz		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Horizontal
Equipment :	IP Camera	Model No :	IPC-HDBW5302-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/10

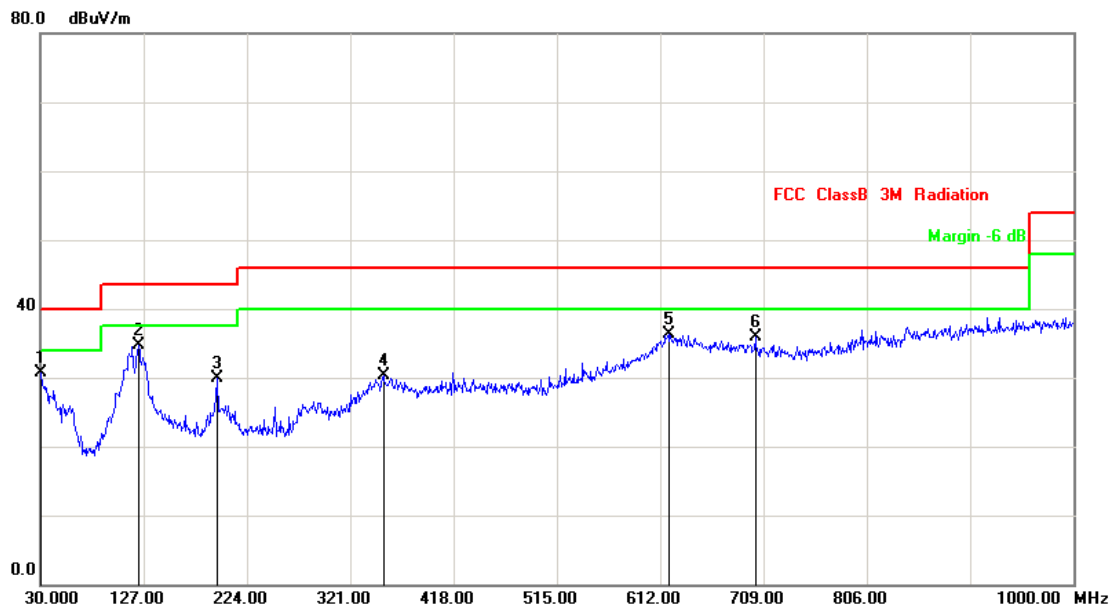


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	30.9699	4.25	25.89	30.14	40.00	-9.86	QP	200	185
2	117.2999	-0.22	31.86	31.64	43.50	-11.86	QP	200	284
3	359.8000	5.14	25.33	30.47	46.00	-15.53	QP	200	269
4	622.6699	11.37	24.87	36.24	46.00	-9.76	QP	100	255
5	651.7698	10.55	26.04	36.59	46.00	-9.41	QP	200	328
6	727.4299	9.25	26.55	35.80	46.00	-10.20	QP	100	359

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 3: Normal Operation for IPC-HDBW5302-Mercury with ADS-12B-12 12012Gz		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Vertical
Equipment :	IP Camera	Model No :	IPC-HDBW5302-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/10

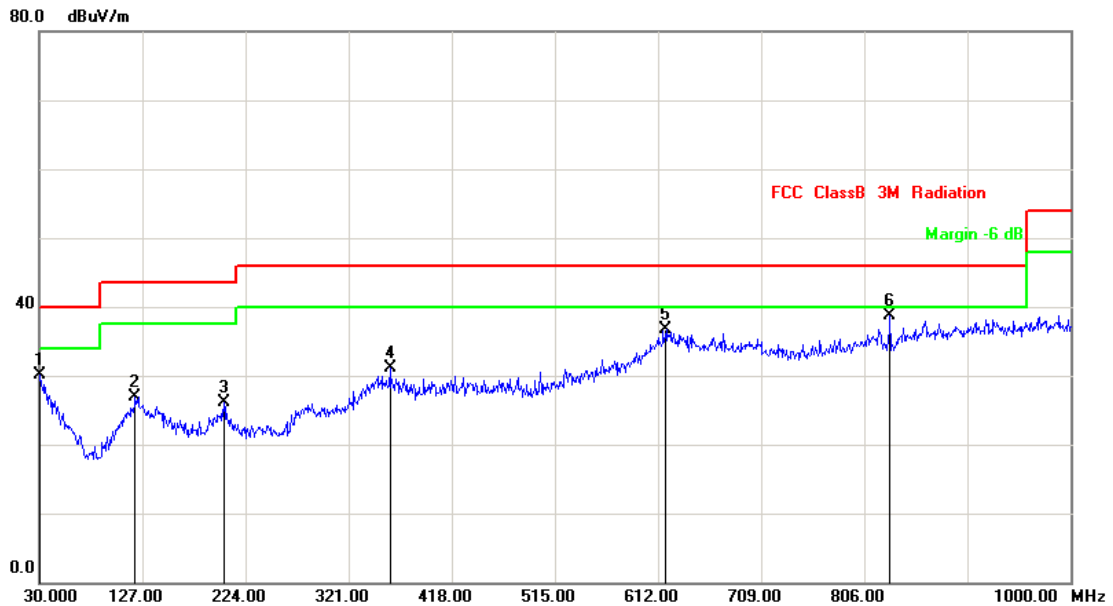


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	30.9700	4.25	26.53	30.78	40.00	-9.22	QP	100	188
2	122.1500	0.18	34.52	34.70	43.50	-8.80	QP	100	272
3	195.8700	-0.53	30.36	29.83	43.50	-13.67	QP	200	184
4	352.0400	4.86	25.35	30.21	46.00	-15.79	QP	100	288
5	619.7600	11.42	24.87	36.29	46.00	-9.71	QP	100	192
6	701.2400	9.84	26.00	35.84	46.00	-10.16	QP	100	205

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 4: Normal Operation for IPC-HDBW5100-Mercury with A12-3A-10		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Horizontal
Equipment :	IP Camera	Model No :	IPC-HDBW5100-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/10

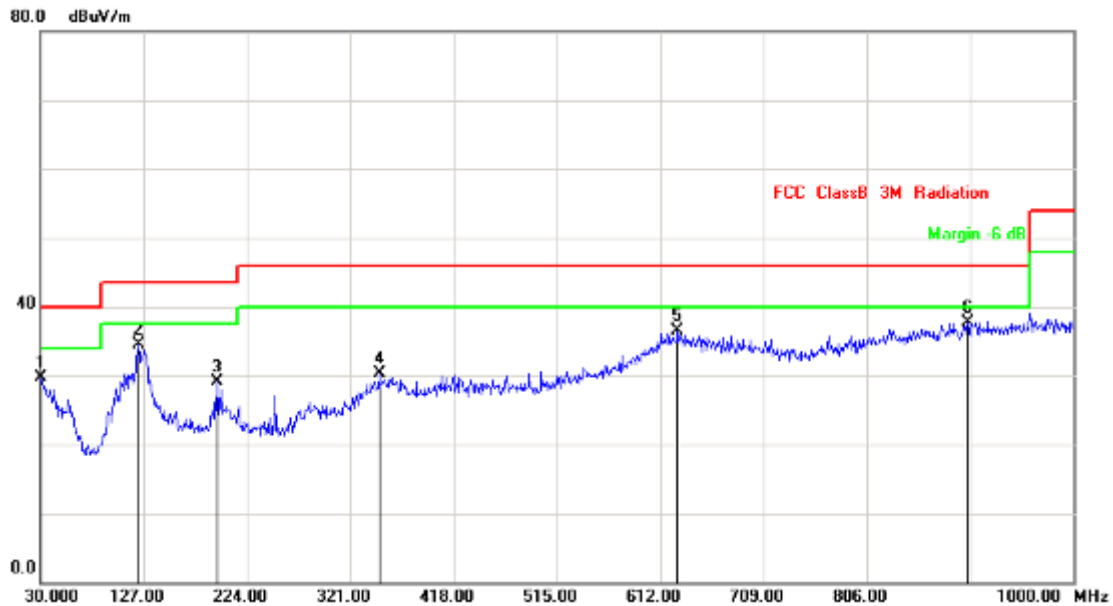


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	30.9699	4.25	25.76	30.01	40.00	-9.99	QP	100	360
2	120.2099	0.18	26.80	26.98	43.50	-16.52	QP	100	95
3	203.6299	-0.37	26.50	26.13	43.50	-17.37	QP	100	20
4	359.8000	5.14	25.98	31.12	46.00	-14.88	QP	100	348
5	619.7599	11.42	25.38	36.80	46.00	-9.20	QP	100	309
6	830.2500	11.22	27.40	38.62	46.00	-7.38	QP	400	263

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 4: Normal Operation for IPC-HDBW5100-Mercury with A12-3A-10		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Vertical
Equipment :	IP Camera	Model No :	IPC-HDBW5100-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/10



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	30.9700	4.25	25.36	29.61	40.00	-10.39	QP	100	353
2	122.1500	0.18	34.25	34.43	43.50	-9.07	QP	100	0
3	195.8700	-0.53	29.60	29.07	43.50	-14.43	QP	100	21
4	348.1600	4.72	25.57	30.29	46.00	-15.71	QP	100	7
5	628.4900	11.20	25.22	36.42	46.00	-9.58	QP	100	0
6	901.0599	12.25	25.55	37.80	46.00	-8.20	QP	400	145

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 5: Normal Operation for IPC-HDBW5202-Mercury with A12-3A-10		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Horizontal
Equipment :	IP Camera	Model No :	IPC-HDBW5202-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/10

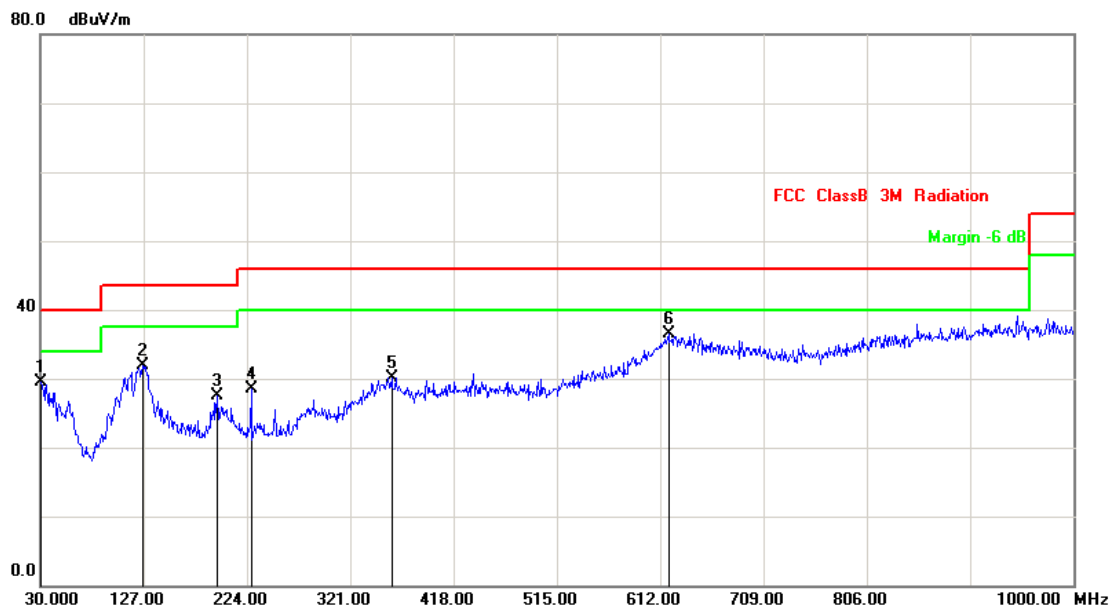


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	30.0000	4.52	25.55	30.07	40.00	-9.93	QP	100	162
2	121.1800	0.18	26.68	26.86	43.50	-16.64	QP	100	254
3	282.1999	1.01	25.36	26.37	46.00	-19.63	QP	100	298
4	354.9499	4.97	25.64	30.61	46.00	-15.39	QP	400	5
5	621.7000	11.39	24.96	36.35	46.00	-9.65	QP	400	215
6	838.9800	11.43	25.95	37.38	46.00	-8.62	QP	400	33

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 5: Normal Operation for IPC-HDBW5202-Mercury with A12-3A-10		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Vertical
Equipment :	IP Camera	Model No :	IPC-HDBW5202-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/10

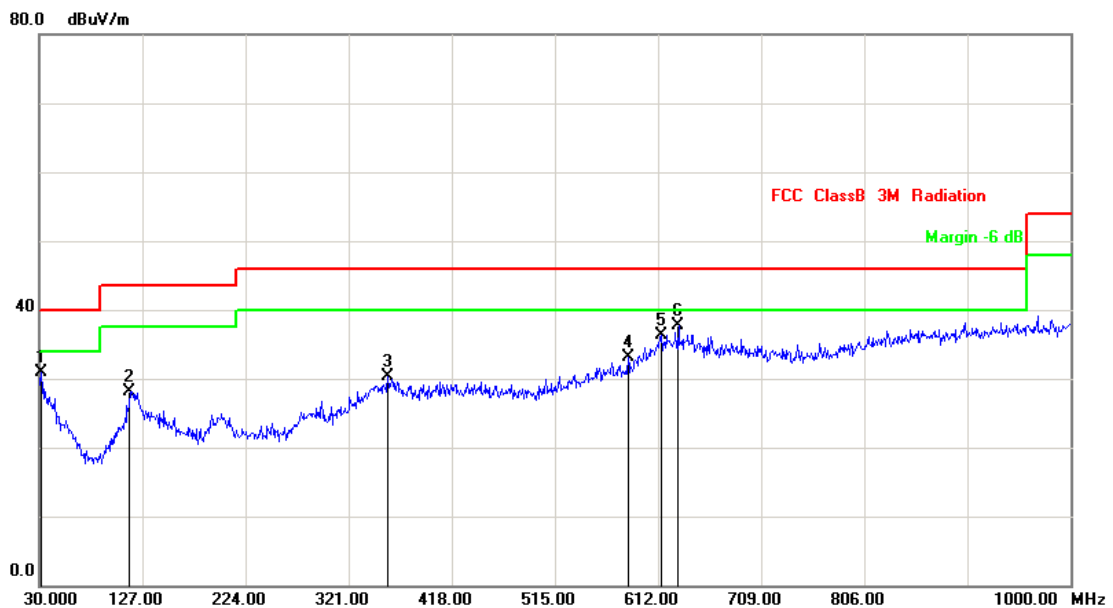


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	30.9700	4.25	25.28	29.53	40.00	-10.47	QP	100	160
2	126.0300	0.18	31.67	31.85	43.50	-11.65	QP	100	81
3	195.8700	-0.53	28.07	27.54	43.50	-15.96	QP	100	11
4	227.8800	-2.08	30.67	28.59	46.00	-17.41	QP	100	67
5	359.8000	5.14	25.02	30.16	46.00	-15.84	QP	100	89
6	619.7600	11.42	25.18	36.60	46.00	-9.40	QP	100	152

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 6: Normal Operation for IPC-HDBW5302-Mercury with A12-3A-10		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Horizontal
Equipment :	IP Camera	Model No :	IPC-HDBW5302-Mercury
Temp :	23℃	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/10



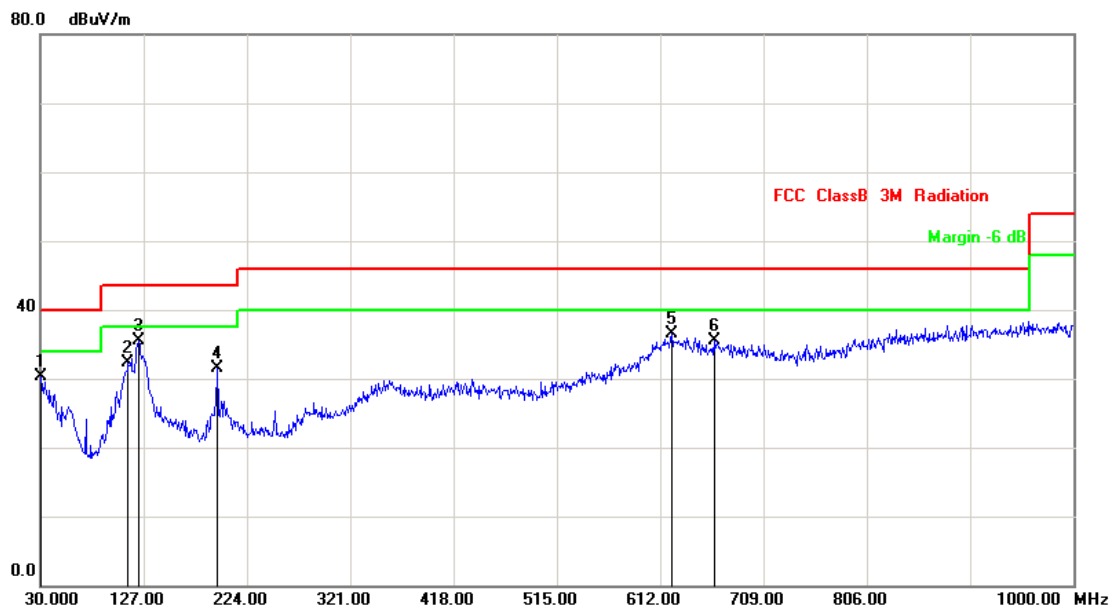
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	31.9400	3.98	26.85	30.83	40.00	-9.17	QP	100	41
2	115.3599	-0.51	28.71	28.20	43.50	-15.30	QP	100	286
3	357.8599	5.07	25.19	30.26	46.00	-15.74	QP	100	302
4	583.8700	7.80	25.39	33.19	46.00	-12.81	QP	100	138
5	614.9099	10.93	25.36	36.29	46.00	-9.71	QP	100	181
6	631.3999	11.12	26.56	37.68	46.00	-8.32	QP	100	25

Note: Measurement Level = Reading Level + Correct Factor





Test Mode :	Mode 6: Normal Operation for IPC-HDBW5302-Mercury with A12-3A-10		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Vertical
Equipment :	IP Camera	Model No :	IPC-HDBW5302-Mercury
Temp :	23℃	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/10



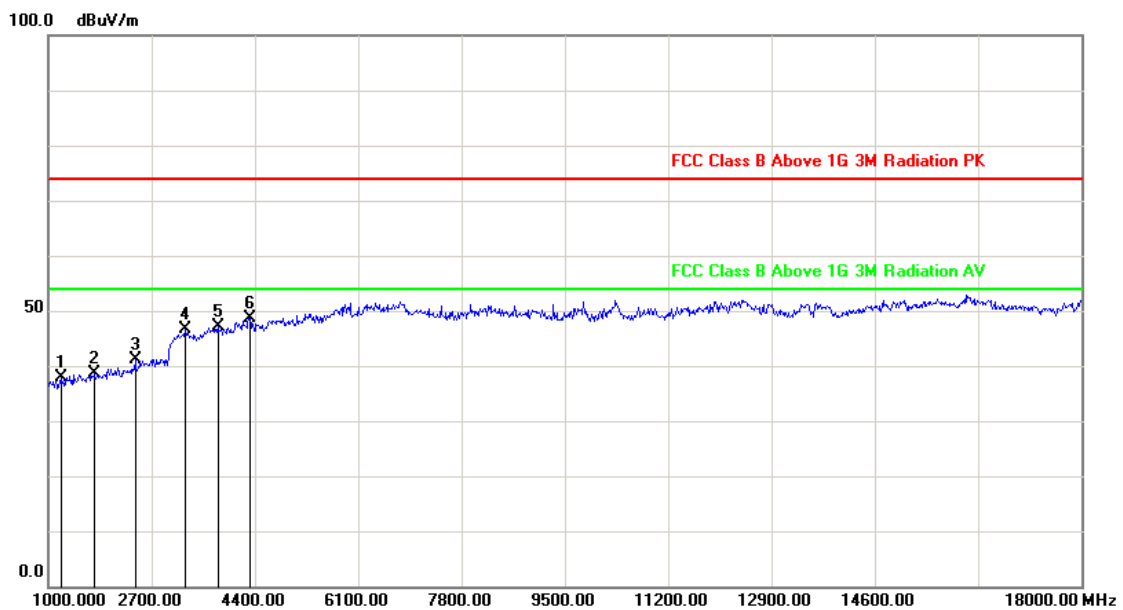
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	30.9700	4.25	26.04	30.29	40.00	-9.71	QP	100	124
2	112.4500	-0.94	33.34	32.40	43.50	-11.10	QP	100	0
3	122.1500	0.18	35.31	35.49	43.50	-8.01	QP	100	294
4	195.8700	-0.53	31.95	31.42	43.50	-12.08	QP	100	216
5	622.6700	11.37	25.21	36.58	46.00	-9.42	QP	100	36
6	662.4400	10.29	25.16	35.45	46.00	-10.55	QP	100	250

Note: Measurement Level = Reading Level + Correct Factor



#### 4.6. Test Result and Data (1000MHz ~ 18000MHz)

Test Mode :	Mode 1: Normal Operation for IPC-HDBW5100-Mercury with ADS-12B-12 12012Gz		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Horizontal
Equipment :	IP Camera	Model No :	IPC-HDBW5100-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/02

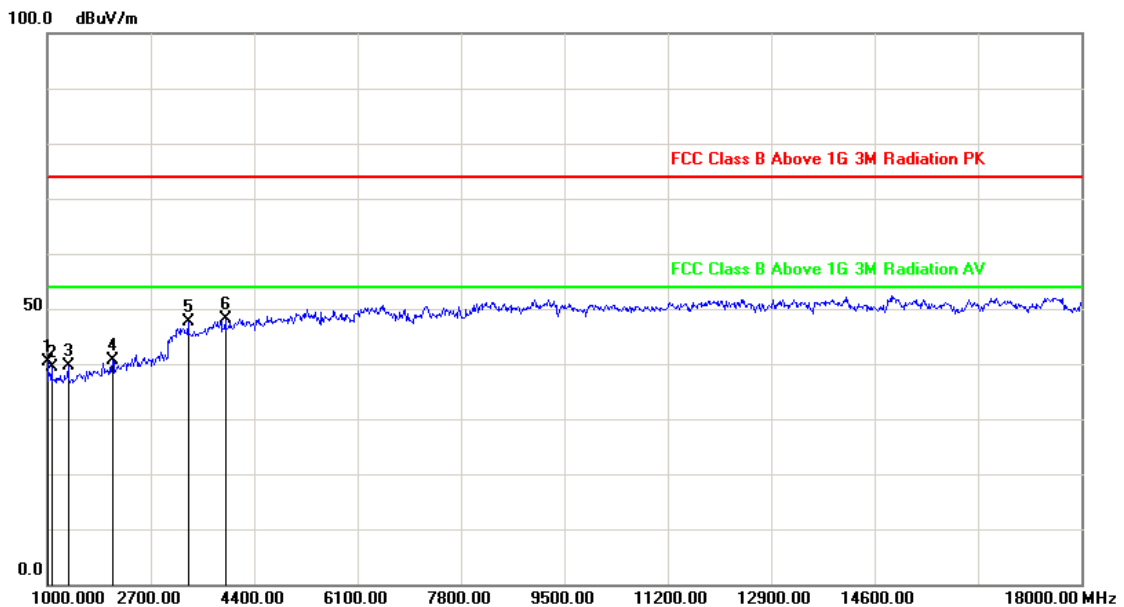


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1204.000	-6.02	43.96	37.94	74.00	-36.06	peak	100	256
2	1765.000	-3.68	42.28	38.60	74.00	-35.40	peak	100	125
3	2428.000	-1.27	42.43	41.16	74.00	-32.84	peak	100	45
4	3261.000	1.62	44.95	46.57	74.00	-27.43	peak	200	78
5	3788.000	3.57	43.49	47.06	74.00	-26.94	peak	100	98
6	4315.000	5.14	43.59	48.73	74.00	-25.27	peak	100	35

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 1: Normal Operation for IPC-HDBW5100-Mercury with ADS-12B-12 12012Gz		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Vertical
Equipment :	IP Camera	Model No :	IPC-HDBW5100-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/02

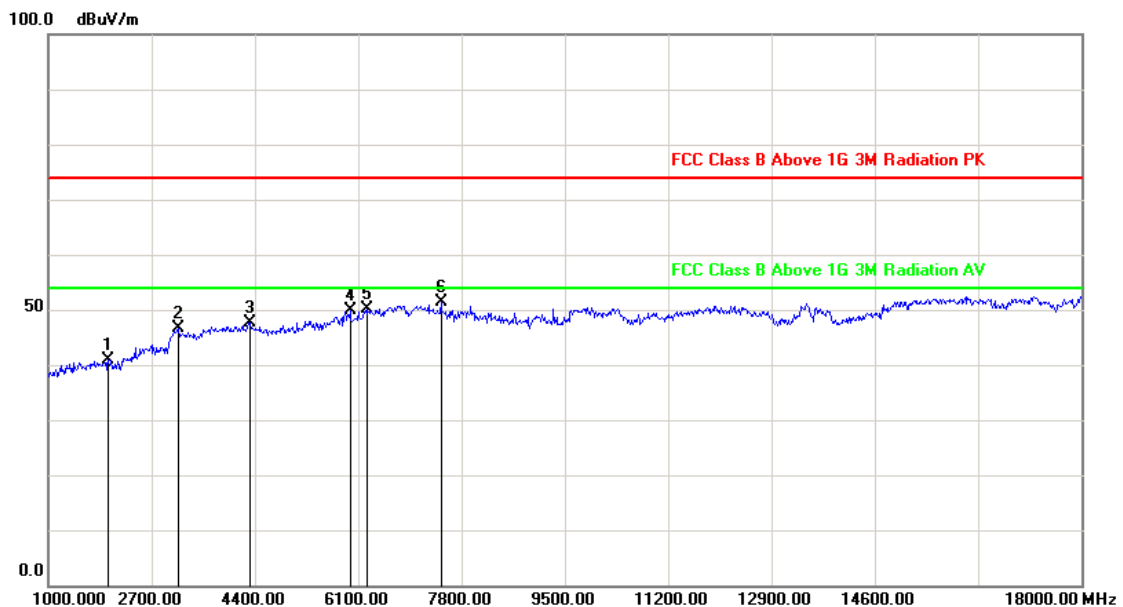


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1000.0000	-6.87	47.17	40.30	74.00	-33.70	peak	100	25
2	1068.000	-6.59	45.92	39.33	74.00	-34.67	peak	100	256
3	1340.000	-5.45	45.00	39.55	74.00	-34.45	peak	100	154
4	2071.000	-2.46	43.15	40.69	74.00	-33.31	peak	200	35
5	3312.000	1.81	45.91	47.72	74.00	-26.28	peak	100	268
6	3924.000	4.08	44.08	48.16	74.00	-25.84	peak	100	98

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 2: Normal Operation for IPC-HDBW5202-Mercury with ADS-12B-12 12012Gz		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Horizontal
Equipment :	IP Camera	Model No :	IPC-HDBW5202-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/02

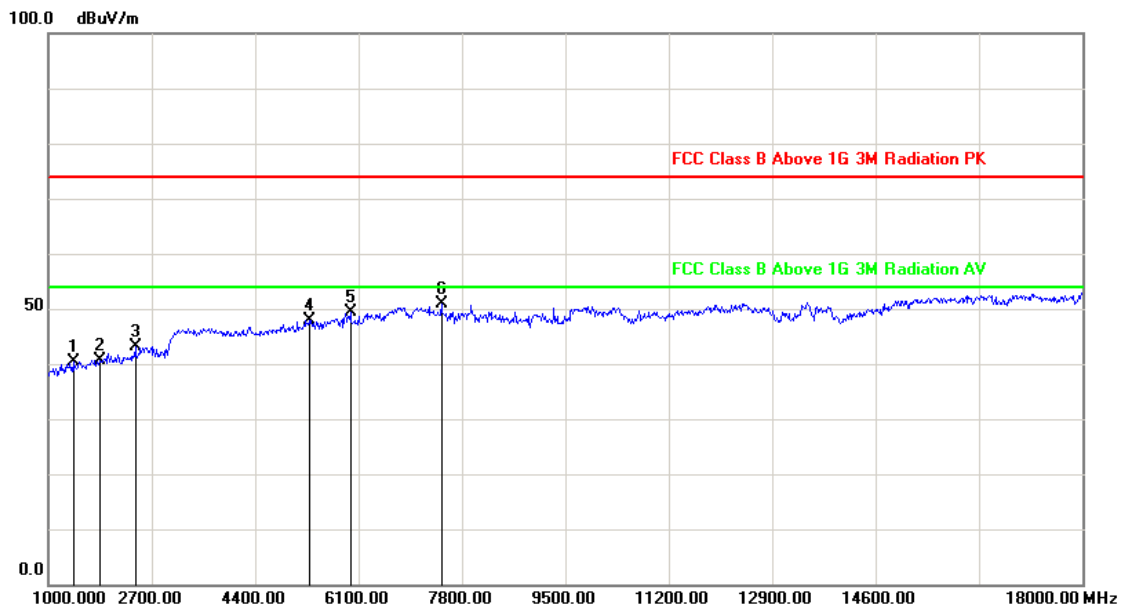


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1986.000	-2.76	43.63	40.87	74.00	-33.13	peak	100	95
2	3142.000	1.18	45.52	46.70	74.00	-27.30	peak	200	256
3	4315.000	5.14	42.59	47.73	74.00	-26.27	peak	100	125
4	5964.000	8.47	41.36	49.83	74.00	-24.17	peak	100	254
5	6236.000	9.34	40.72	50.06	74.00	-23.94	peak	100	123
6	7460.000	13.07	38.21	51.28	74.00	-22.72	peak	100	321

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 2: Normal Operation for IPC-HDBW5202-Mercury with ADS-12B-12 12012Gz		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Vertical
Equipment :	IP Camera	Model No :	IPC-HDBW5202-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/02

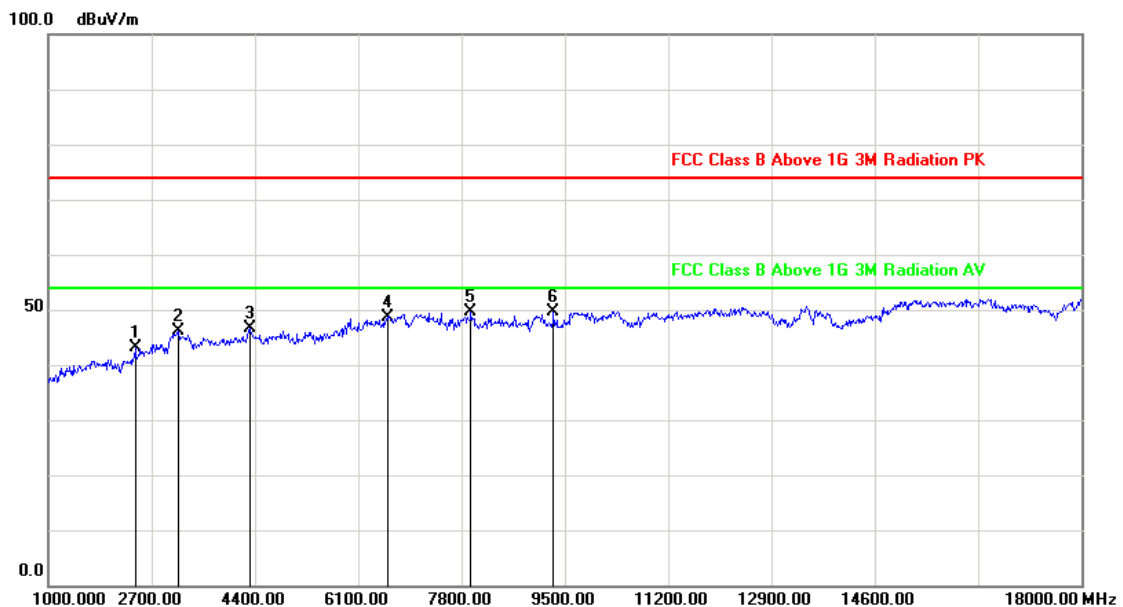


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1408.000	-5.17	45.55	40.38	74.00	-33.62	peak	100	21
2	1850.000	-3.33	44.03	40.70	74.00	-33.30	peak	100	244
3	2428.000	-1.27	44.43	43.16	74.00	-30.84	peak	100	14
4	5284.000	7.33	40.66	47.99	74.00	-26.01	peak	200	27
5	5964.000	8.47	40.86	49.33	74.00	-24.67	peak	100	136
6	7460.000	13.07	37.71	50.78	74.00	-23.22	peak	100	12

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 3: Normal Operation for IPC-HDBW5302-Mercury with ADS-12B-12 12012Gz		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Horizontal
Equipment :	IP Camera	Model No :	IPC-HDBW5302-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/02

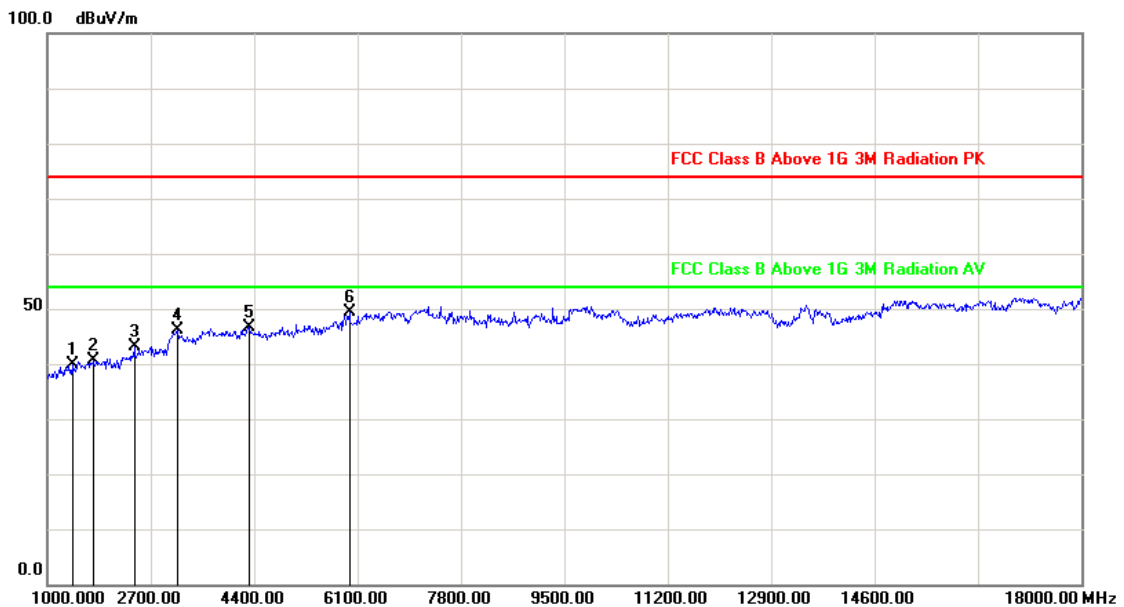


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	2428.000	-1.27	44.43	43.16	74.00	-30.84	peak	100	325
2	3142.000	1.18	45.02	46.20	74.00	-27.80	peak	200	12
3	4315.000	5.14	41.59	46.73	74.00	-27.27	peak	100	355
4	6576.000	10.52	38.08	48.60	74.00	-25.40	peak	100	95
5	7953.000	14.25	35.35	49.60	74.00	-24.40	peak	100	84
6	9313.000	15.82	33.87	49.69	74.00	-24.31	peak	100	65

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 3: Normal Operation for IPC-HDBW5302-Mercury with ADS-12B-12 12012Gz		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Vertical
Equipment :	IP Camera	Model No :	IPC-HDBW5302-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/02

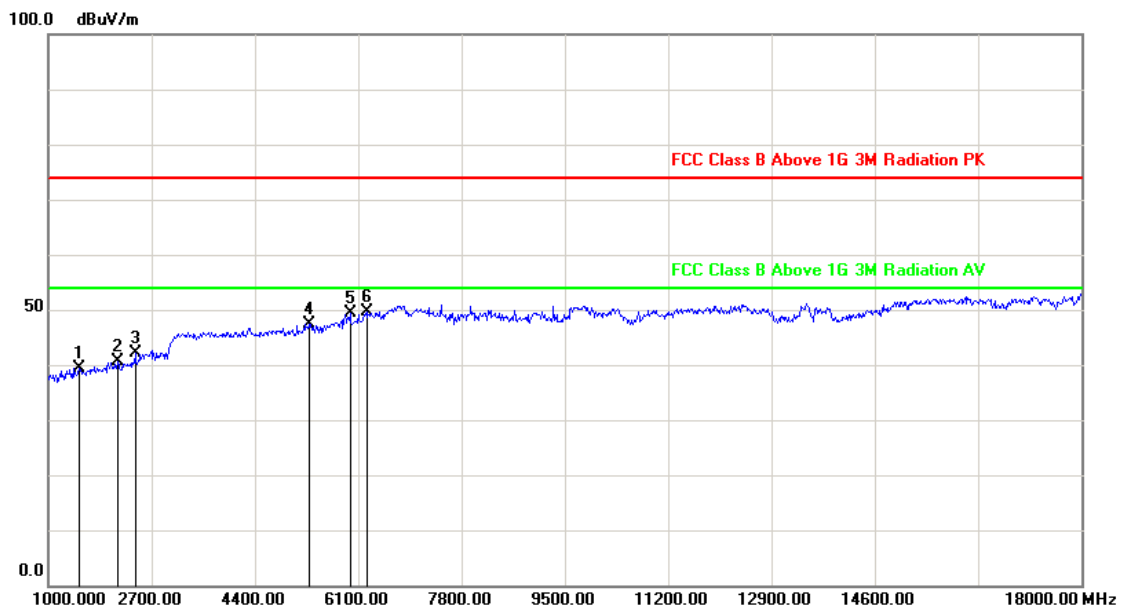


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1408.000	-5.17	45.05	39.88	74.00	-34.12	peak	100	326
2	1765.000	-3.68	44.28	40.60	74.00	-33.40	peak	100	52
3	2428.000	-1.27	44.43	43.16	74.00	-30.84	peak	100	148
4	3142.000	1.18	45.02	46.20	74.00	-27.80	peak	100	89
5	4315.000	5.14	41.59	46.73	74.00	-27.27	peak	200	92
6	5964.000	8.47	40.86	49.33	74.00	-24.67	peak	100	45

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 4: Normal Operation for IPC-HDBW5100-Mercury with A12-3A-10		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Horizontal
Equipment :	IP Camera	Model No :	IPC-HDBW5100-Mercury
Temp :	23℃	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/02



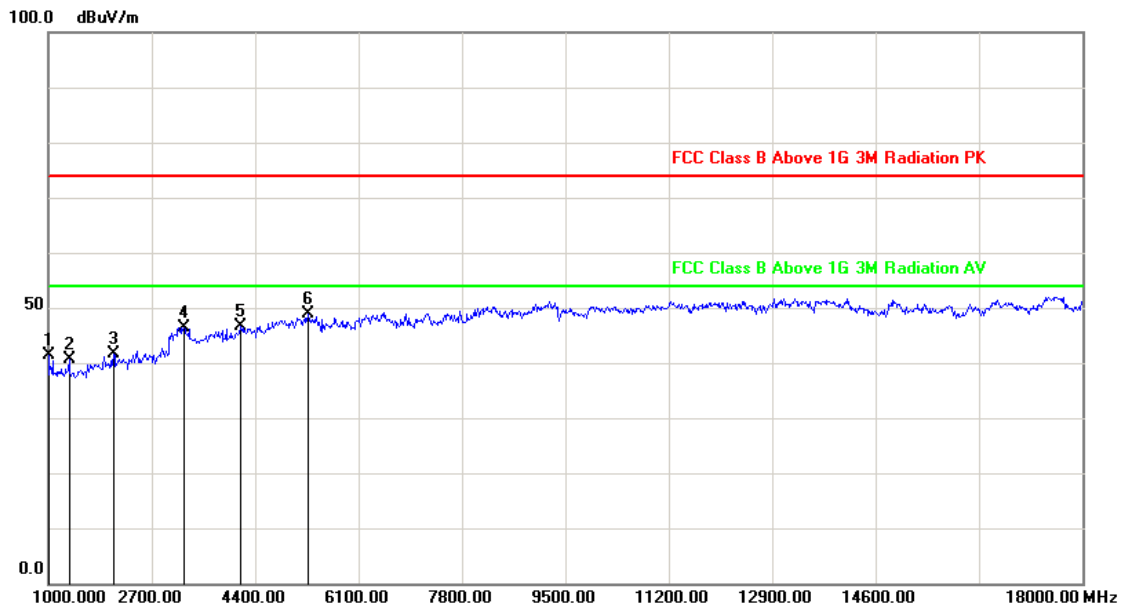
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1510.000	-4.74	44.20	39.46	74.00	-34.54	peak	100	35
2	2139.000	-2.23	42.75	40.52	74.00	-33.48	peak	200	265
3	2428.000	-1.27	43.43	42.16	74.00	-31.84	peak	100	123
4	5284.000	7.33	40.16	47.49	74.00	-26.51	peak	100	25
5	5964.000	8.47	40.86	49.33	74.00	-24.67	peak	100	125
6	6236.000	9.34	40.22	49.56	74.00	-24.44	peak	100	32

Note: Measurement Level = Reading Level + Correct Factor





Test Mode :	Mode 4: Normal Operation for IPC-HDBW5100-Mercury with A12-3A-10		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Vertical
Equipment :	IP Camera	Model No :	IPC-HDBW5100-Mercury
Temp :	23℃	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/02

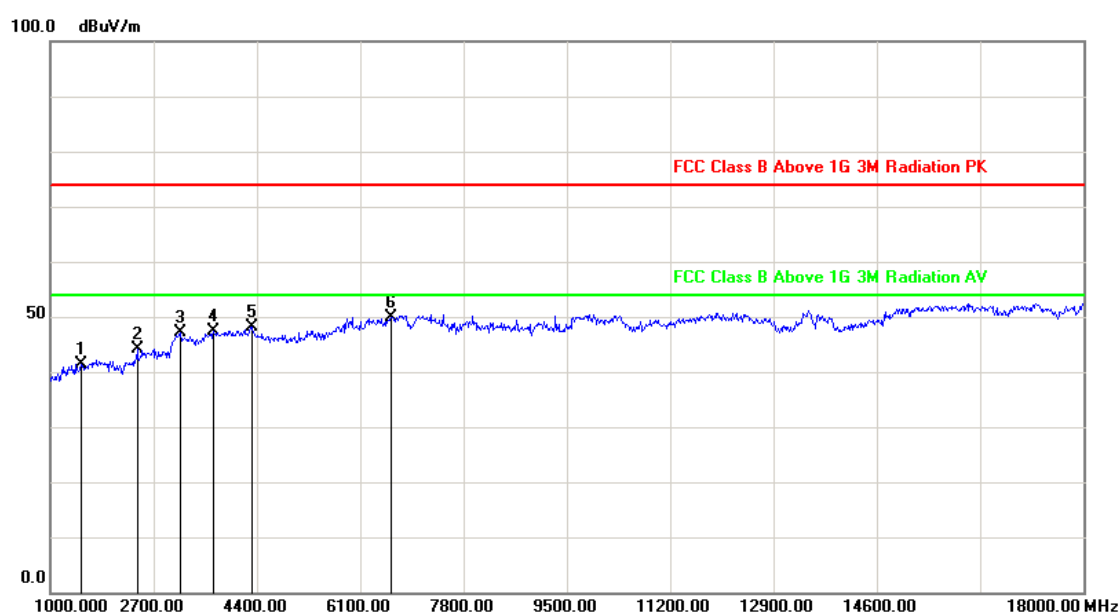


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1000.0000	-6.87	48.17	41.30	74.00	-32.70	peak	100	256
2	1340.000	-5.45	46.00	40.55	74.00	-33.45	peak	200	123
3	2071.000	-2.46	44.15	41.69	74.00	-32.31	peak	100	25
4	3227.000	1.49	44.94	46.43	74.00	-27.57	peak	100	98
5	4162.000	4.76	41.77	46.53	74.00	-27.47	peak	100	78
6	5267.000	7.30	41.46	48.76	74.00	-25.24	peak	100	15

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 5: Normal Operation for IPC-HDBW5202-Mercury with A12-3A-10		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Horizontal
Equipment :	IP Camera	Model No :	IPC-HDBW5202-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/02

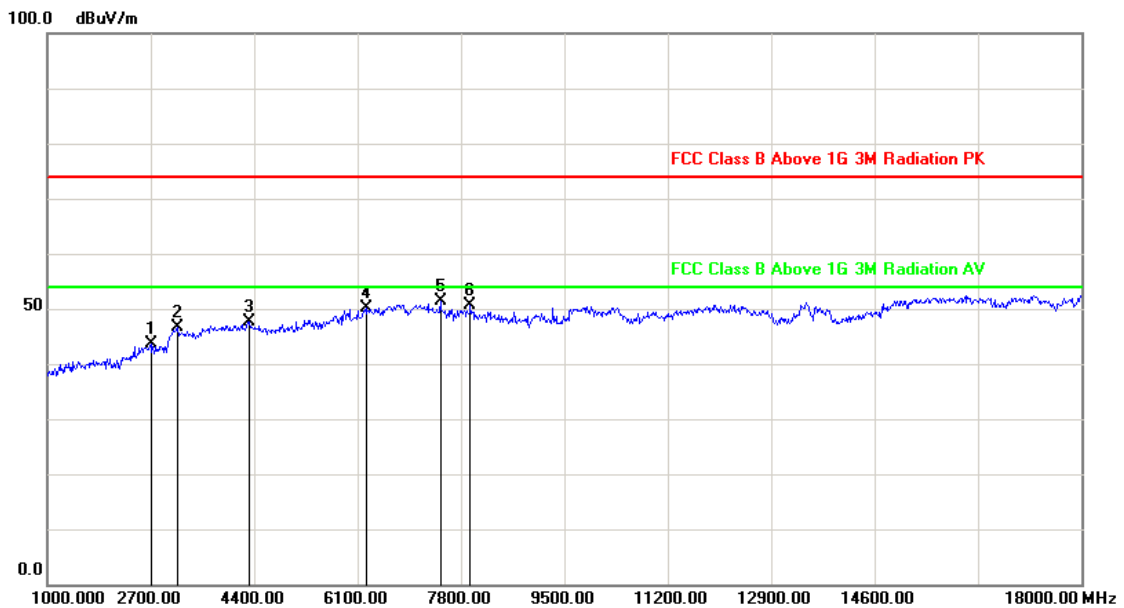


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1510.000	-4.74	46.20	41.46	74.00	-32.54	peak	100	352
2	2428.000	-1.27	45.43	44.16	74.00	-29.84	peak	100	265
3	3142.000	1.18	46.02	47.20	74.00	-26.80	peak	100	135
4	3686.000	3.20	44.27	47.47	74.00	-26.53	peak	200	48
5	4315.000	5.14	43.09	48.23	74.00	-25.77	peak	100	95
6	6610.000	10.63	39.31	49.94	74.00	-24.06	peak	100	78

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 5: Normal Operation for IPC-HDBW5202-Mercury with A12-3A-10		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Vertical
Equipment :	IP Camera	Model No :	IPC-HDBW5202-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/02

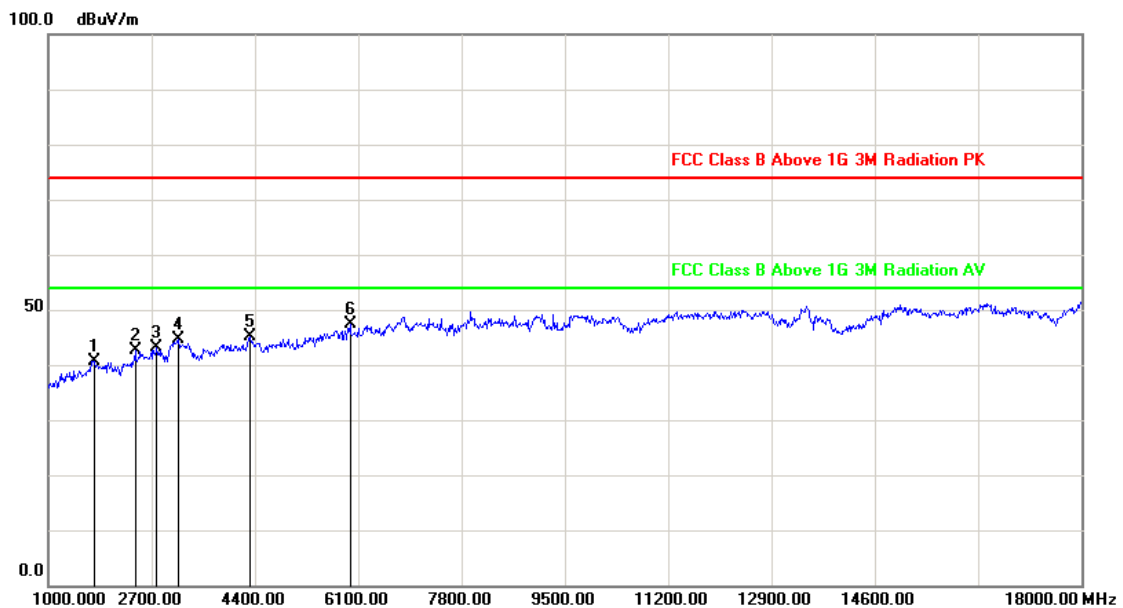


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	2700.000	-0.36	43.96	43.60	74.00	-30.40	peak	100	256
2	3142.000	1.18	45.52	46.70	74.00	-27.30	peak	100	125
3	4315.000	5.14	42.59	47.73	74.00	-26.27	peak	100	45
4	6236.000	9.34	40.72	50.06	74.00	-23.94	peak	200	98
5	7460.000	13.07	38.21	51.28	74.00	-22.72	peak	100	147
6	7953.000	14.25	36.35	50.60	74.00	-23.40	peak	100	326

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 6: Normal Operation for IPC-HDBW5302-Mercury with A12-3A-10		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Horizontal
Equipment :	IP Camera	Model No :	IPC-HDBW5302-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/02

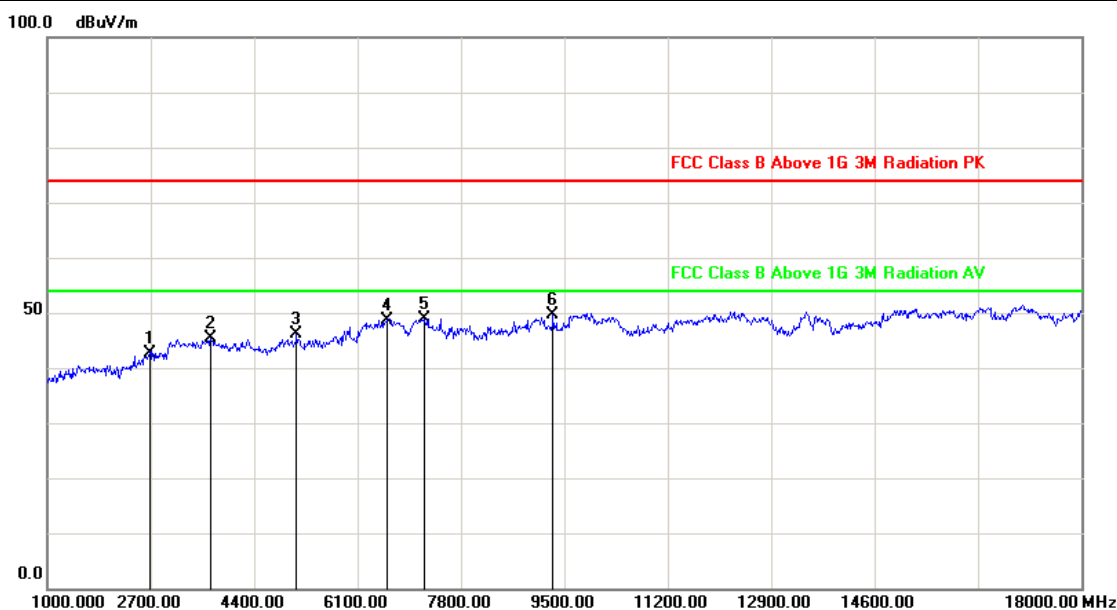


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1765.000	-3.68	44.28	40.60	74.00	-33.40	peak	100	95
2	2428.000	-1.27	43.93	42.66	74.00	-31.34	peak	100	65
3	2785.000	-0.07	43.29	43.22	74.00	-30.78	peak	100	83
4	3142.000	1.18	43.52	44.70	74.00	-29.30	peak	100	215
5	4315.000	5.14	40.09	45.23	74.00	-28.77	peak	100	123
6	5964.000	8.47	38.86	47.33	74.00	-26.67	peak	100	179

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 6: Normal Operation for IPC-HDBW5302-Mercury with A12-3A-10		
AC Power :	AC 120V/60Hz	Ant. Polarization:	Vertical
Equipment :	IP Camera	Model No :	IPC-HDBW5302-Mercury
Temp :	23°C	Humidity :	50%
Pressure(mbar) :	1002	Date :	2014/07/02



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	2683.000	-0.41	43.08	42.67	74.00	-31.33	peak	100	95
2	3686.000	3.20	42.27	45.47	74.00	-28.53	peak	100	156
3	5097.000	7.01	39.17	46.18	74.00	-27.82	peak	200	32
4	6576.000	10.52	38.08	48.60	74.00	-25.40	peak	100	98
5	7188.000	12.43	36.56	48.99	74.00	-25.01	peak	100	65
6	9313.000	15.82	33.87	49.69	74.00	-24.31	peak	100	235

Note: Measurement Level = Reading Level + Correct Factor

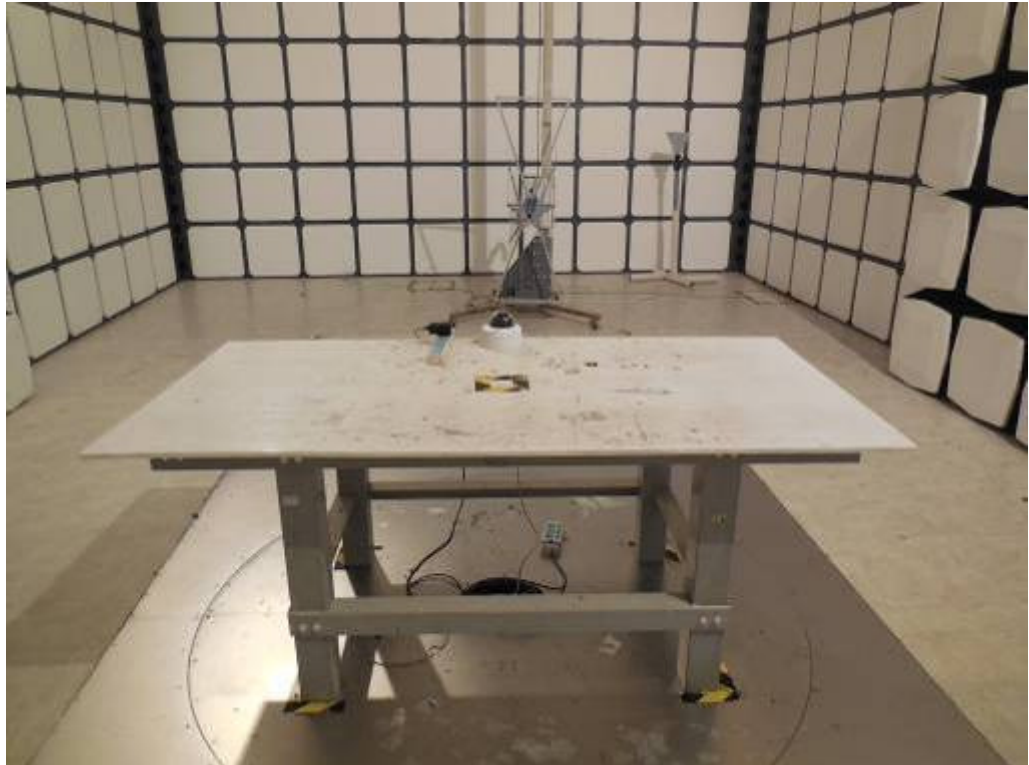
Test engineer: Karp



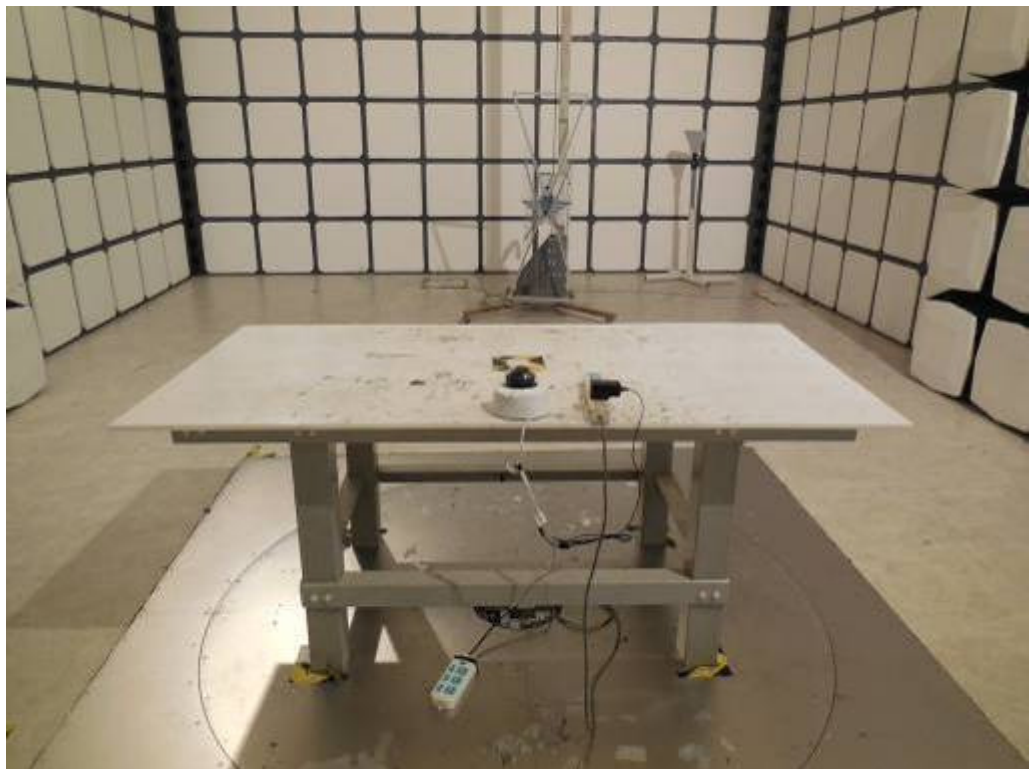
#### 4.7. Test Photographs (30MHz ~ 1000MHz)

ADS-12B-12 12012Gz

Front View



Rear View



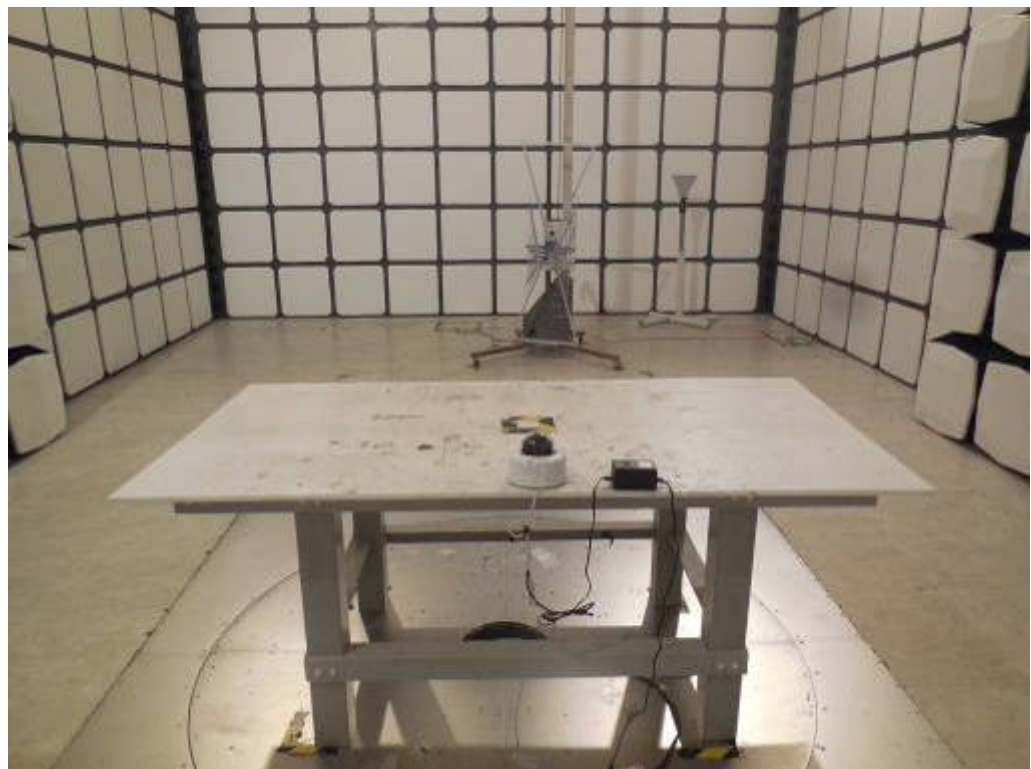


A12-3A-10

Front View



Rear View







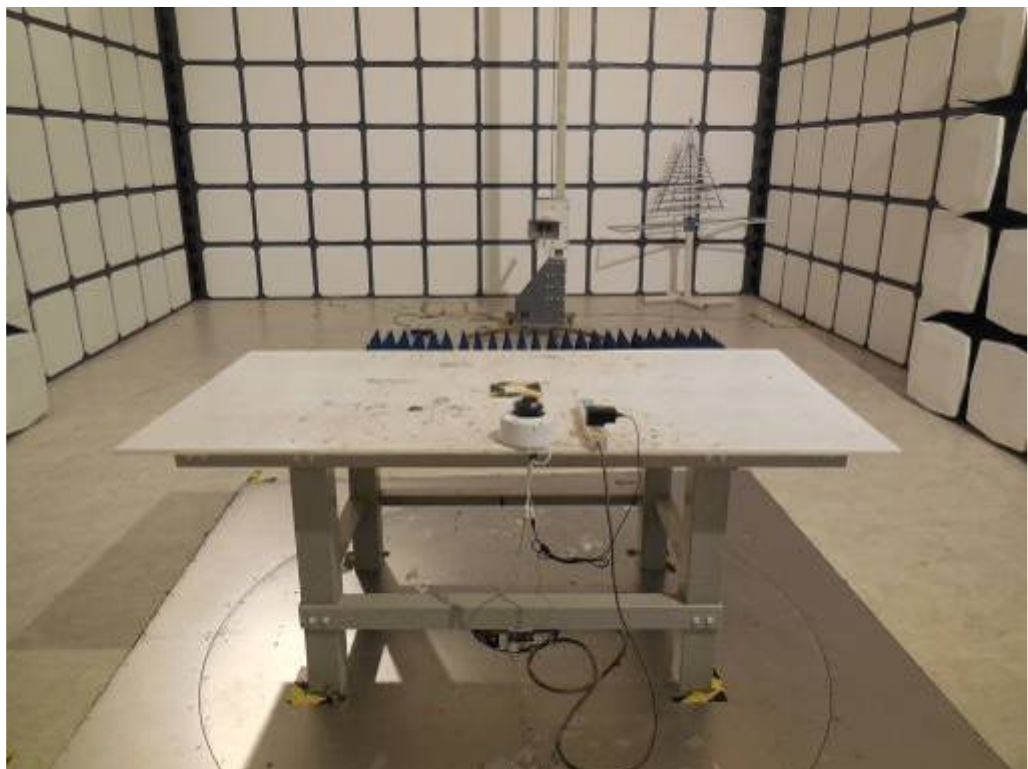
#### 4.8. Test Photographs (1000MHz ~ 18000MHz)

ADS-12B-12 12012Gz

Front View



Rear View

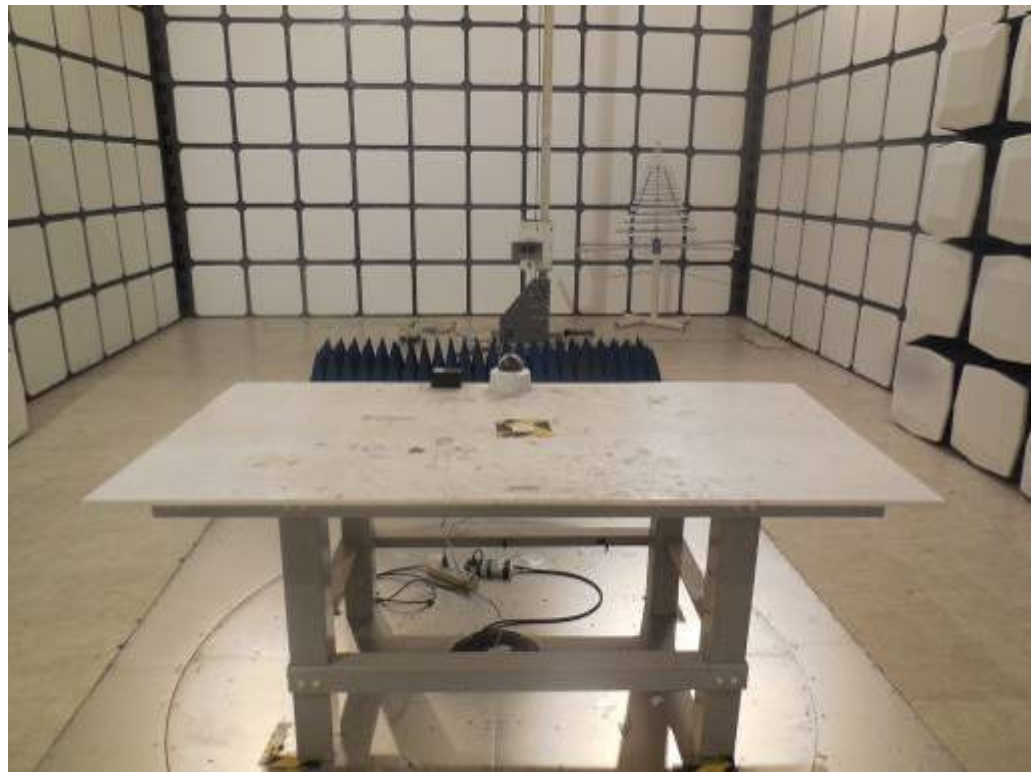




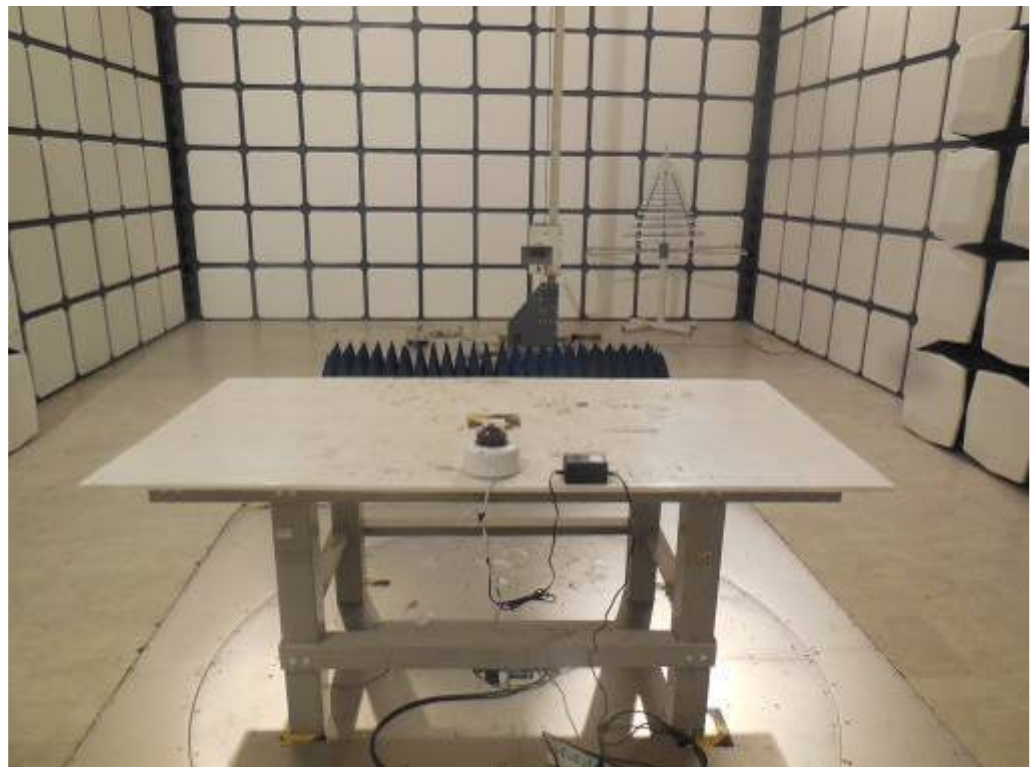


A12-3A-10

Front View



Rear View





## 5. Photographs of EUT

### 1) EUT Photo(IPC-HDBW5302-Mercury)



### 2) EUT Photo(IPC-HDBW5302-Mercury)





3) EUT Photo (IPC-HDBW5302-Mercury)



4) EUT Photo (IPC-HDBW5302-Mercury)





5) EUT Photo (IPC-HDBW5302-Mercury)



6) EUT Photo (IPC-HDBW5202-Mercury)



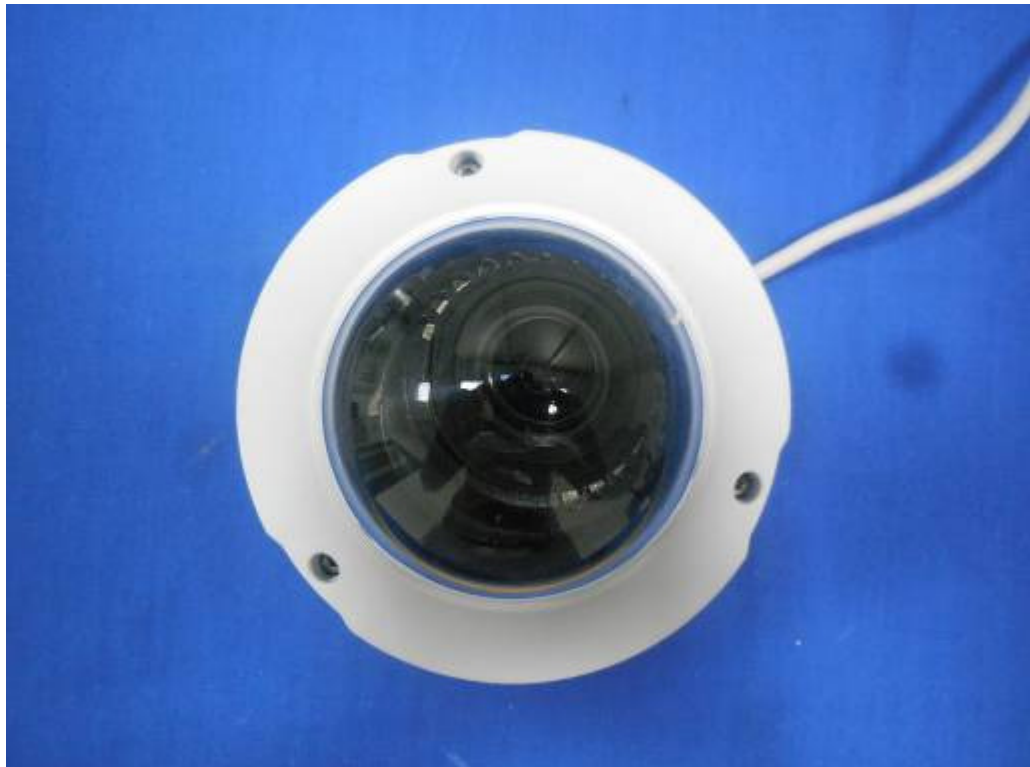




7) EUT Photo (IPC-HDBW5202-Mercury)



8) EUT Photo (IPC-HDBW5202-Mercury)





9) EUT Photo (IPC-HDBW5202-Mercury)



10) EUT Photo (IPC-HDBW5202-Mercury)





11) EUT Photo (IPC-HDBW5100-Mercury)



12) EUT Photo (IPC-HDBW5100-Mercury)





13) EUT Photo (IPC-HDBW5100-Mercury)



14) EUT Photo (IPC-HDBW5100-Mercury)







15) EUT Photo(Adapter/ADS-12B-12 12012Gz)



16) EUT Photo(Adapter/ ADS-12B-12 12012Gz)





17) EUT Photo(Adapter/ ADS-12B-12 12012Gz)



18) EUT Photo(Adapter/ ADS-12B-12 12012Gz)





19) EUT Photo(Adapter/ A12-3A-10)



20) EUT Photo(Adapter/ A12-3A-10)







21) EUT Photo(Adapter/ A12-3A-10)

