FCC 47 CFR PART 15 SUBPART B

CERTIFICATION TEST REPORT

For

SHENZHEN Hitevision Technology Co., Ltd.

Interactive Touch Screen, LED Interactive Multi-Touch Display, Optimus-Touch Screen, Genee Touch, Interactive Led Monitor, Touch Pro

Model No.: TWB-IB55, TWB-IB55X, TWB-IB55A, TWB-IB55AX, VI-55X1, 55G-Touch Slim-DELX, QIT1255 10BA, TT-5515B, TT-5515BX, TT-551XB, Predia PRO OTS-55V3/15S, We-Touch 55-10T, TWB-IBC55, TWB-IBC55X, TWB-IBC55A, TWB-IBC55AX, P-55Da, HD-I5XXXE, HD-IXXXXE, WS-Z5XXX('X'=0-9 or A-Z)

FCC ID: 2ACYT-AHH15901-55

Prepared for	:	SHENZHEN Hitevision Technology Co., Ltd.
Address	:	No. 8, Qinglan 1st Road, Pingshan, Shenzhen, Guangdong 518118, P. R. China
Prepared by	:	EMTEK (SHENZHEN) CO., LTD.
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Report Number	:	ES150908007E
Date of Test	:	September 8, 2015 to October 19, 2015
Date of Report	:	October 19, 2015

TABLE OF CONTENT

TEST REPORT DESCRIPTION

Applicant	:	SHENZHEN Hitevision Technology Co., Ltd.
Manufacturer	:	SHENZHEN Hitevision Technology Co., Ltd.
Trademark	:	Newline, Razr®, PREDIA, HiteVision
EUT	:	Interactive Touch Screen, LED Interactive Multi-Touch Display, Optimus-Touch Screen, Genee Touch, Interactive Led Monitor, Touch Pro
Model No.	:	TWB-IB55, TWB-IB55X, TWB-IB55A, TWB-IB55AX, VI-55X1, 55G-Touch Slim-DELX, QIT1255 10BA, TT-5515B, TT-5515BX, TT-551XB, Predia PRO OTS-55V3/15S, We-Touch 55-10T, TWB-IBC55, TWB-IBC55X, TWB-IBC55A, TWB-IBC55AX, P-55Da, HD-I5XXXE, HD-IXXXXE, WS-Z5XXX('X'=0-9 or A-Z)
Power Supply	:	AC 100-240V ~50/60Hz Max 2.0A

Measurement Procedure Used:

FCC Rules and Regulations Part 15 : 2015 Subpart B Class B & FCC / ANSI C63.4-2014

The device described above is tested by EMTEK (SHENZHEN) CO., LTD. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and EMTEK (SHENZHEN) CO., LTD. is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of EMTEK (SHENZHEN) CO., LTD.

Date of Test : September 8, 2015 to October 19, 2015

Prepared by : Joe Xia /Editor

Reviewer : Jack Li /Supervisor

Approve & Authorized Signer : Lisa Wang /Manager

Modified Information

Version	Report No.	Revision Date	Summary
Ver.1.0	ES150908007E	/	Original Report

1. SUMMARY OF TEST RESULT

EMISSION		
Description of Test Item	Standard & Limits	Results
Conducted Disturbance at Mains Terminals	FCC Part 15, Subpart B, Class B ANSI C63.4: 2014	Pass
Radiated Disturbance	FCC Part 15, Subpart B, Class B ANSI C63.4: 2014	Pass
Note: N/A is an abbreviation for Not Applicable.		

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

EUT	:	Interactive Touch Screen, LED Interactive Multi-Touch Display, Optimus-Touch Screen, Genee Touch, Interactive Led Monitor, Touch Pro
Model Number	:	TWB-IB55, TWB-IB55X, TWB-IB55A, TWB-IB55AX, VI-55X1, 55G-Touch Slim-DELX, QIT1255 10BA, TT-5515B, TT-5515BX, TT-551XB, Predia PRO OTS-55V3/15S, We-Touch 55-10T, TWB-IBC55, TWB-IBC55X, TWB-IBC55A, TWB-IBC55AX, P-55Da, HD-I5XXXE, HD-IXXXXE, WS-Z5XXX('X'=0-9 or A-Z) (Note: These models are identical in circuitry and electrical, mechanical and physical construction; the only difference is the model number. for trading purpose. We prepare TWB-IB55 for all test.)
Applicant	:	SHENZHEN Hitevision Technology Co., Ltd.
Address	:	No. 8, Qinglan 1st Road, Pingshan, Shenzhen, Guangdong 518118, P. R. China
Manufacturer	:	SHENZHEN Hitevision Technology Co., Ltd.
Address	:	No. 8, Qinglan 1st Road, Pingshan, Shenzhen, Guangdong 518118, P. R. China
Date of Received	:	September 8, 2015
Date of Test	:	September 8, 2015 to October 19, 2015

2.2. Description of Test Facility

Site Description

EMC Lab. : Accredited by CNAS, 2013.10.29
The certificate is valid until 2016.10.28
The Laboratory has been assessed and proved to be in compliance with CNAS-CL01: 2006(identical to ISO/IEC17025: 2005)
The Certificate Registration Number is L2291

: Accredited by TUV Rheinland Shenzhen, 2010.5.25
The Laboratory has been assessed according to the requirements ISO/IEC 17025.

: Accredited by FCC, July 24, 2013
The Certificate Registration Number is 406365.

: Accredited by FCC, April 17, 2013
The Certificate Registration Number is 709623.

: Accredited by Industry Canada, November 29, 2012
The Certificate Registration Number is 4480A

2.3. Description of Support Device

PC	:	Manufacturer: LENOVO M/N: 9702 S/N: L3C4410 CE, FCC: DOC
LCD TV	:	Manufacturer: SONY M/N: KDL-24EX520 S/N: 6258850 CE , FCC,
Keyboard	:	Manufacturer: LENOVO M/N: KU-0225 S/N:0585494 CE, FCC: DOC
Mouse	:	Manufacturer: LENOVO M/N: MO28UOL S/N:44G7862 068 CE, FCC: DOC

2.4. Measurement Uncertainty

Test Item		Uncertainty
Conducted Emission Uncertainty	:	2.96dB(9k~150kHz Conduction 1#) 2.74dB(150k-30MHz Conduction 1#)
Radiated Emission Uncertainty (10m Chamber)	:	3.96dB (30M~1GHz Polarize: H) 4.04dB (30M~1GHz Polarize: V)
Radiated Emission Uncertainty (3m Chamber)	:	4.46dB (1~6GHz)

3. MEASURING DEVICE AND TEST EQUIPMENT

3.1. For Power Line Conducted Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
☑	Test Receiver	Rohde & Schwarz	ESCI	26115-010-0027	May 16, 2015	1 Year
☑	L.I.S.N.	Rohde & Schwarz	ENV216	101161	May 16, 2015	1 Year
☑	50Ω Coaxial Switch	Anritsu	MP59B	6100175589	May 16, 2015	1 Year
☑	Voltage Probe	Rohde & Schwarz	ESH2-Z3	100122	May 16, 2015	1 Year

3.2. For Radiated Emission Measurement (10m Chamber)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
☑	EMI Test Receiver	Rohde & Schwarz	ESR3	1316.3003K03-101706-HN	May 16, 2015	1 Year
☑	EMI Test Receiver	Rohde & Schwarz	ESR3	1316.3003K03-101707-Z1	May 16, 2015	1 Year
☑	Pre-Amplifier	Lunar EM	LNA10M1G-40	J1011130912001	May 16, 2015	1 Year
☑	Pre-Amplifier	Lunar EM	LNA10M1G-40	J1011131126002	May 16, 2015	1 Year
☑	Bilog Antenna	Schwarzbeck	VULB9163	659	May 16, 2015	1 Year
☑	Bilog Antenna	Schwarzbeck	VULB9163	661	May 16, 2015	1 Year

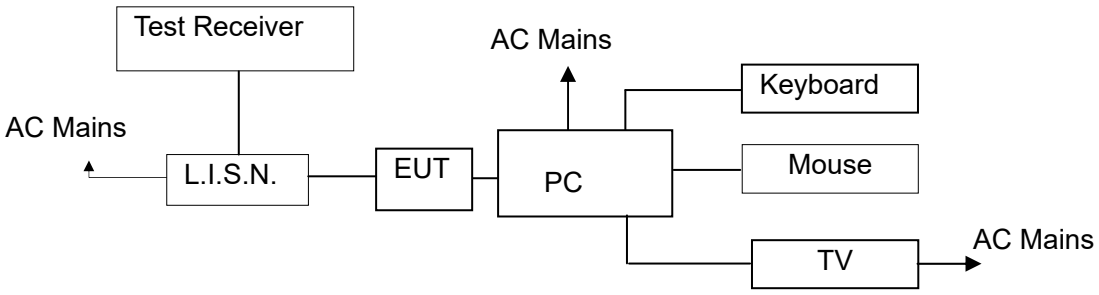
3.3. For Radiated Emission Measurement (3m Chamber)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
☑	EMI Test Receiver	Rohde & Schwarz	ESU	1302.6005.26	May 16, 2015	1 Year
☑	Pre-Amplifier	A.H.	PAM-0126	1415261	May 16, 2015	1 Year
☑	Horn Antenna	Schwarzbeck	BBHA 9120	707	May 16, 2015	1 Year

4. POWER LINE CONDUCTED EMISSION MEASUREMENT

4.1. Block Diagram of Test Setup

For Connect to PC:



(EUT: Interactive Touch Screen)

4.2. Measuring Standard

FCC Part 15, Subpart B, Class BANSI C63.4: 2014

4.3. Power Line Conducted Emission Limits (Class B)

Frequency (MHz)	Limit (dBμV)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66.0 ~ 56.0 *	56.0 ~ 46.0 *
0.50 ~ 5.00	56.0	46.0
5.00 ~ 30.00	60.0	50.0
NOTE1-The lower limit shall apply at the transition frequencies. NOTE2-The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.		

4.4. EUT Configuration on Measurement

The following equipments are installed on Conducted Emission Measurement to meet FCC requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

EUT : Interactive Touch Screen
Model Number : TWB-IB55

4.5. Operating Condition of EUT

4.5.1.Setup the EUT as shown on Section 4.1.

4.5.2.Turn on the power of all equipments.

4.5.3.Let the EUT work in measuring mode (AV in, Y+Pb+Pr in, HDMI in, USB Play, SD CARD play, VGA & Ping) and measure it.

4.6. Test Procedure

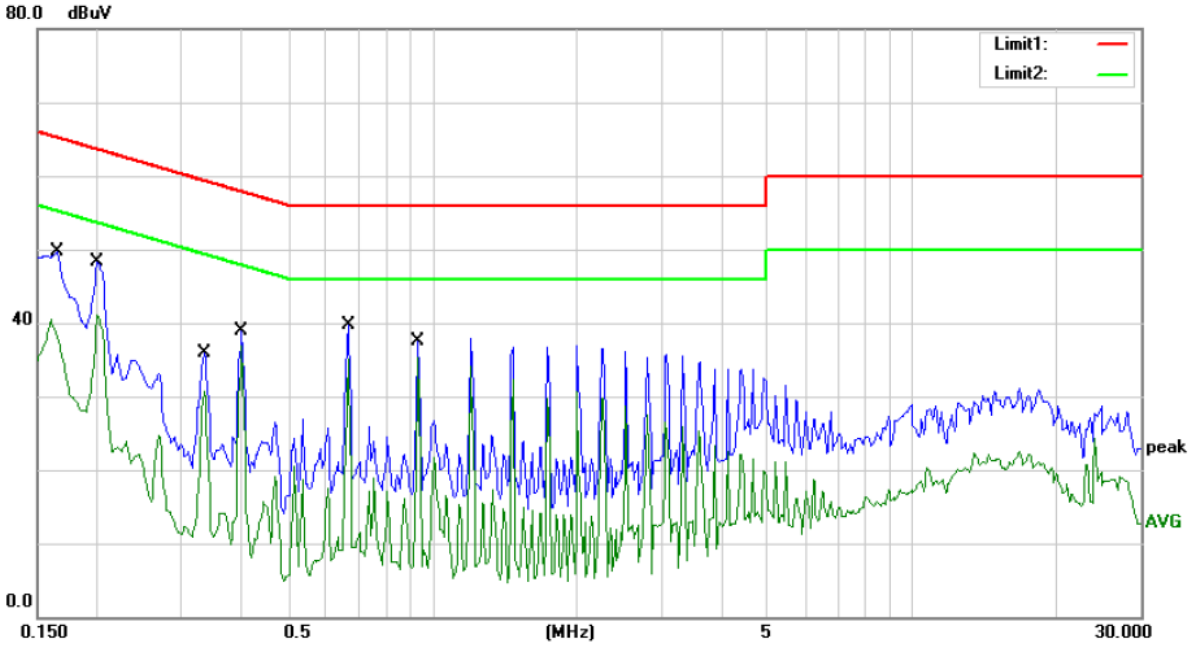
The EUT is put on the plane 0.1m high above the ground by insulating support and connected to the AC mains through Line Impedance Stability Network (L.I.S.N). This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are investigated to find out the maximum conducted emission according to the FCC regulations during conducted emission measurement.
The bandwidth of the field strength meter (R&S Test Receiver ESCS30) is set at 9kHz in 150kHz~30MHz and 200Hz in 9kHz~150kHz.
The frequency range from 150kHz to 30MHz is investigated.

All the modes were tested and the data of the worst modes (VGA(1920*1080) & Ping) are attached the following pages.

4.7. Measuring Results

PASS.

Please refer to the following pages.



Site Conduction #1 Phase: *L1* Temperature: 26

Limit: (CE)FCC PART15 CLASS B_QP Power: AC 120V/50Hz Humidity: 60 %

EUT: Interactive Touch Screen

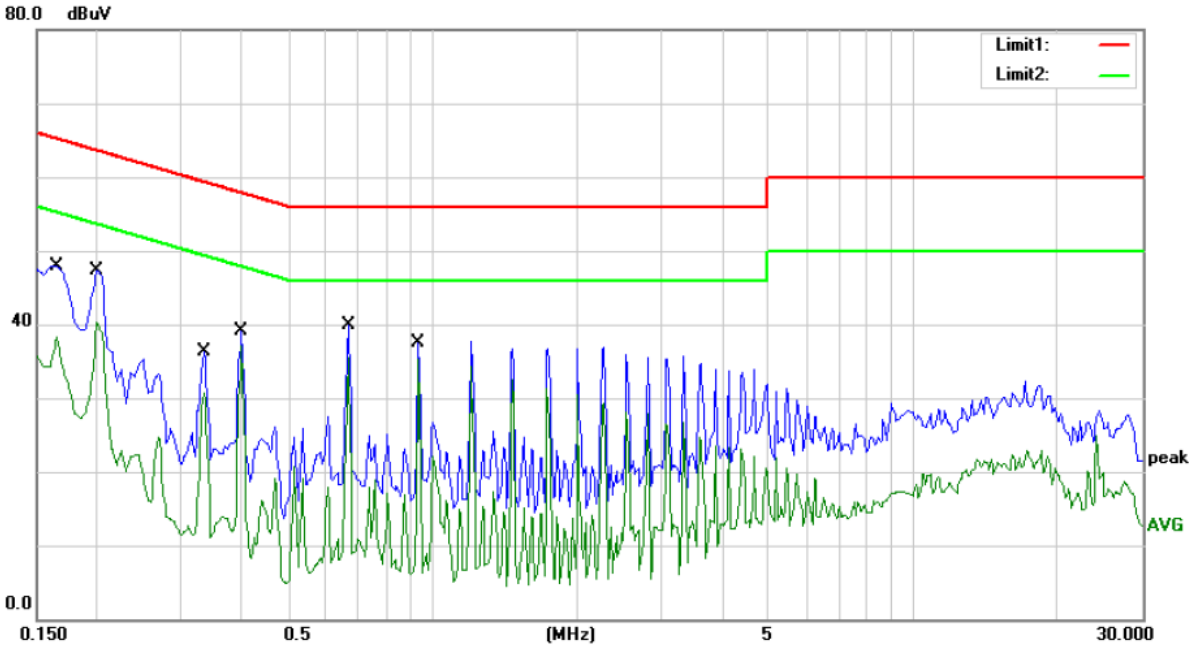
M/N: TWB-IB55

Mode: VGA(1920*1080)+PING

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1650	49.68	0.00	49.68	65.21	-15.53	QP	
2		0.1650	40.41	0.00	40.41	55.21	-14.80	AVG	
3		0.2000	48.40	0.00	48.40	63.61	-15.21	QP	
4		0.2000	41.09	0.00	41.09	53.61	-12.52	AVG	
5		0.3350	35.84	0.00	35.84	59.33	-23.49	QP	
6		0.3350	30.78	0.00	30.78	49.33	-18.55	AVG	
7		0.4000	38.86	0.00	38.86	57.85	-18.99	QP	
8		0.4000	36.94	0.00	36.94	47.85	-10.91	AVG	
9		0.6700	39.76	0.00	39.76	56.00	-16.24	QP	
10		0.6700	35.15	0.00	35.15	46.00	-10.85	AVG	
11		0.9350	37.52	0.00	37.52	56.00	-18.48	QP	
12	*	0.9350	35.39	0.00	35.39	46.00	-10.61	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: WAP



Site Conduction #1 Phase: N Temperature: 26

Limit: (CE)FCC PART15 CLASS B_QP Power: AC 120V/50Hz Humidity: 60 %

EUT: Interactive Touch Screen

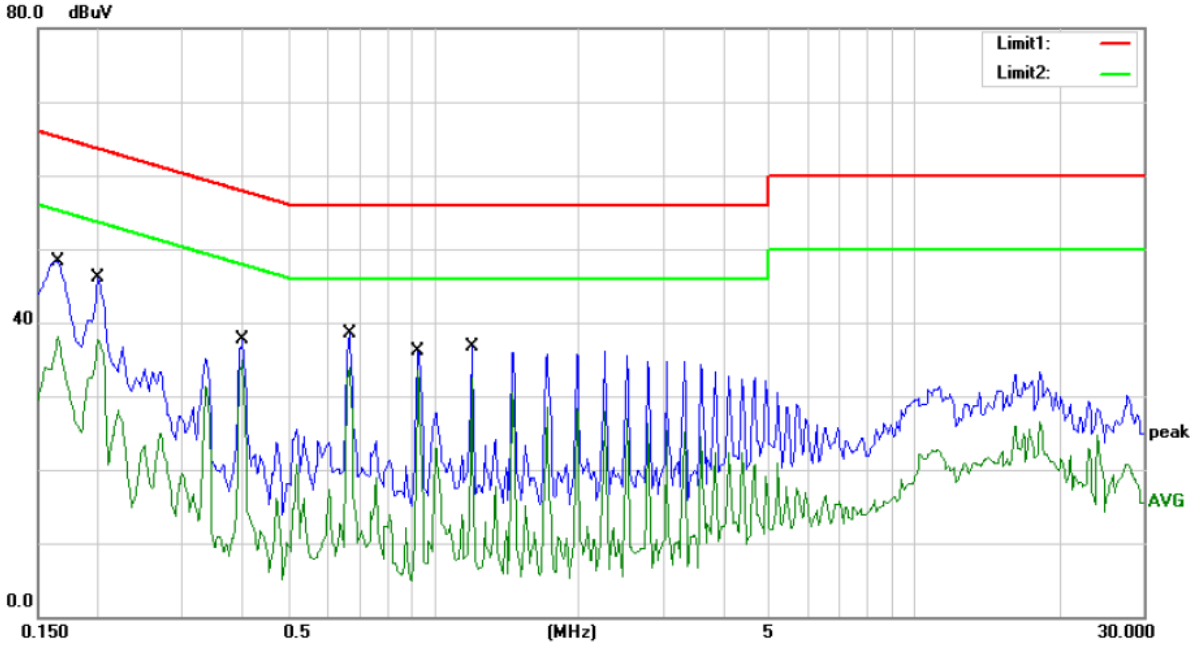
M/N: TWB-IB55

Mode: VGA(1920*1080)+PING

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1650	47.97	0.00	47.97	65.21	-17.24	QP	
2		0.1650	38.28	0.00	38.28	55.21	-16.93	AVG	
3		0.2000	47.40	0.00	47.40	63.61	-16.21	QP	
4		0.2000	40.31	0.00	40.31	53.61	-13.30	AVG	
5		0.3350	36.22	0.00	36.22	59.33	-23.11	QP	
6		0.3350	30.72	0.00	30.72	49.33	-18.61	AVG	
7		0.4000	39.13	0.00	39.13	57.85	-18.72	QP	
8		0.4000	37.05	0.00	37.05	47.85	-10.80	AVG	
9		0.6700	39.92	0.00	39.92	56.00	-16.08	QP	
10	*	0.6700	35.59	0.00	35.59	46.00	-10.41	AVG	
11		0.9350	37.56	0.00	37.56	56.00	-18.44	QP	
12		0.9350	35.32	0.00	35.32	46.00	-10.68	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: WAP



Site Conduction #1 Phase: *L1* Temperature: 26

Limit: (CE)FCC PART 15 class B_QP Power: AC 240V/50Hz Humidity: 60 %

EUT: Interactive Touch Screen

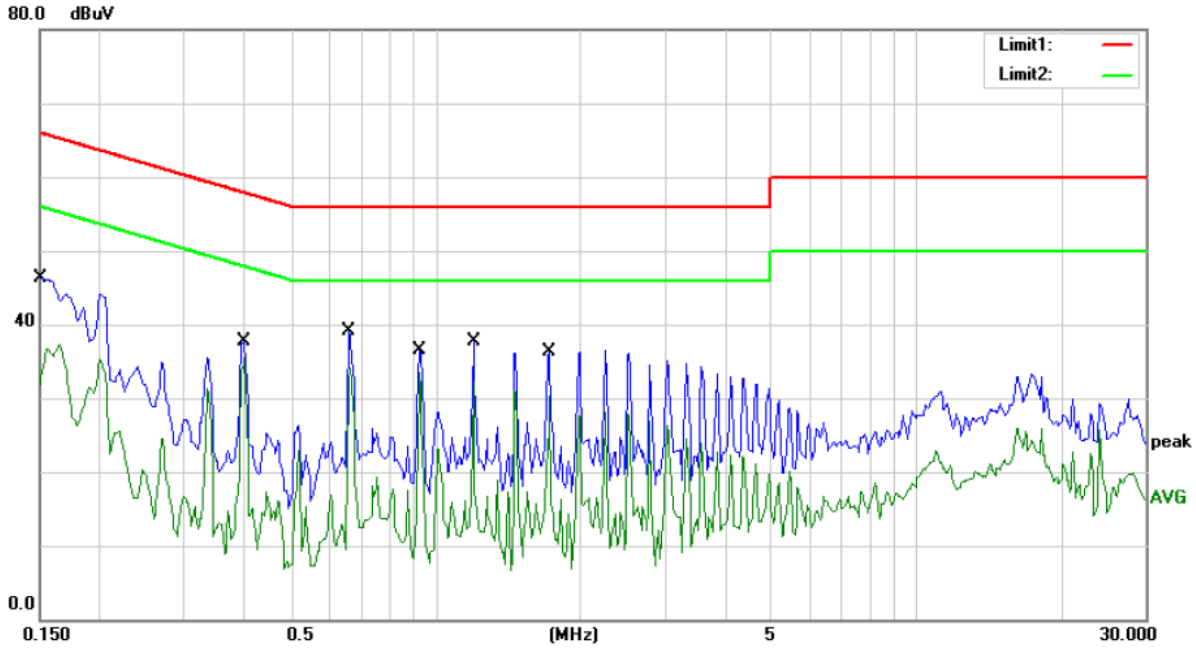
M/N: TWB-IB55

Mode: VGA(1920*1080)+PING

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1650	48.38	0.00	48.38	65.21	-16.83	QP	
2		0.1650	38.11	0.00	38.11	55.21	-17.10	AVG	
3		0.2000	46.01	0.00	46.01	63.61	-17.60	QP	
4		0.2000	37.68	0.00	37.68	53.61	-15.93	AVG	
5		0.4000	37.62	0.00	37.62	57.85	-20.23	QP	
6		0.4000	34.94	0.00	34.94	47.85	-12.91	AVG	
7		0.6700	38.58	0.00	38.58	56.00	-17.42	QP	
8	*	0.6700	33.82	0.00	33.82	46.00	-12.18	AVG	
9		0.9250	36.08	0.00	36.08	56.00	-19.92	QP	
10		0.9250	33.48	0.00	33.48	46.00	-12.52	AVG	
11		1.2000	36.70	0.00	36.70	56.00	-19.30	QP	
12		1.2000	32.45	0.00	32.45	46.00	-13.55	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: WAP



Site Conduction #1 Phase: N Temperature: 26

Limit: (CE)FCC PART 15 class B_QP Power: AC 240V/50Hz Humidity: 60 %

EUT: Interactive Touch Screen

M/N: TWB-IB55

Mode: VGA(1920*1080)+PING

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	46.25	0.00	46.25	66.00	-19.75	QP	
2		0.1500	37.34	0.00	37.34	56.00	-18.66	AVG	
3		0.4000	37.69	0.00	37.69	57.85	-20.16	QP	
4		0.4000	35.52	0.00	35.52	47.85	-12.33	AVG	
5		0.6600	39.05	0.00	39.05	56.00	-16.95	QP	
6	*	0.6600	34.15	0.00	34.15	46.00	-11.85	AVG	
7		0.9250	36.57	0.00	36.57	56.00	-19.43	QP	
8		0.9250	33.44	0.00	33.44	46.00	-12.56	AVG	
9		1.2000	37.66	0.00	37.66	56.00	-18.34	QP	
10		1.2000	32.26	0.00	32.26	46.00	-13.74	AVG	
11		1.7300	36.28	0.00	36.28	56.00	-19.72	QP	
12		1.7300	31.06	0.00	31.06	46.00	-14.94	AVG	

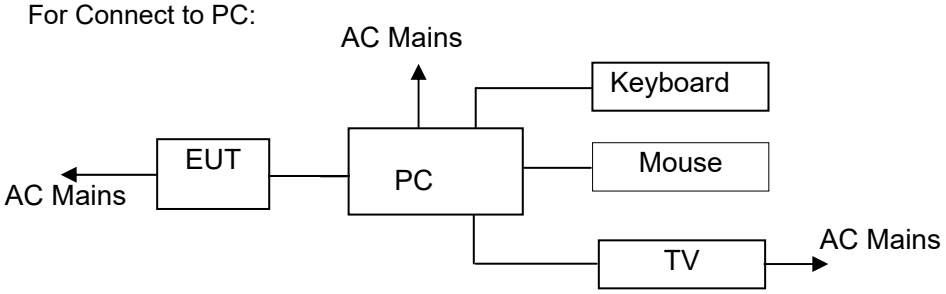
*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: WAP

5. RADIATED EMISSION MEASUREMENT

5.1. Block Diagram of Test Setup

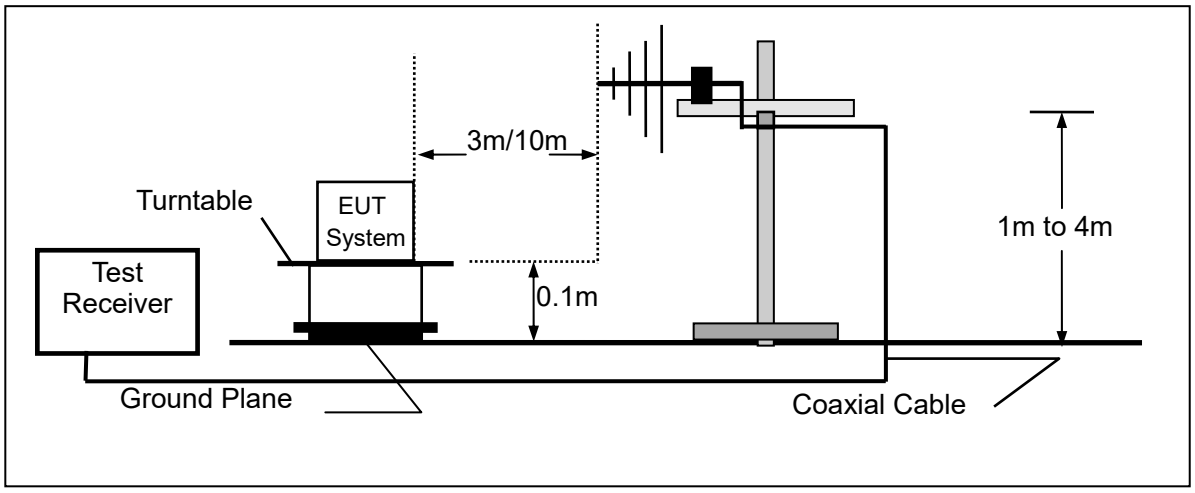
5.1.1. Block diagram of EUT System

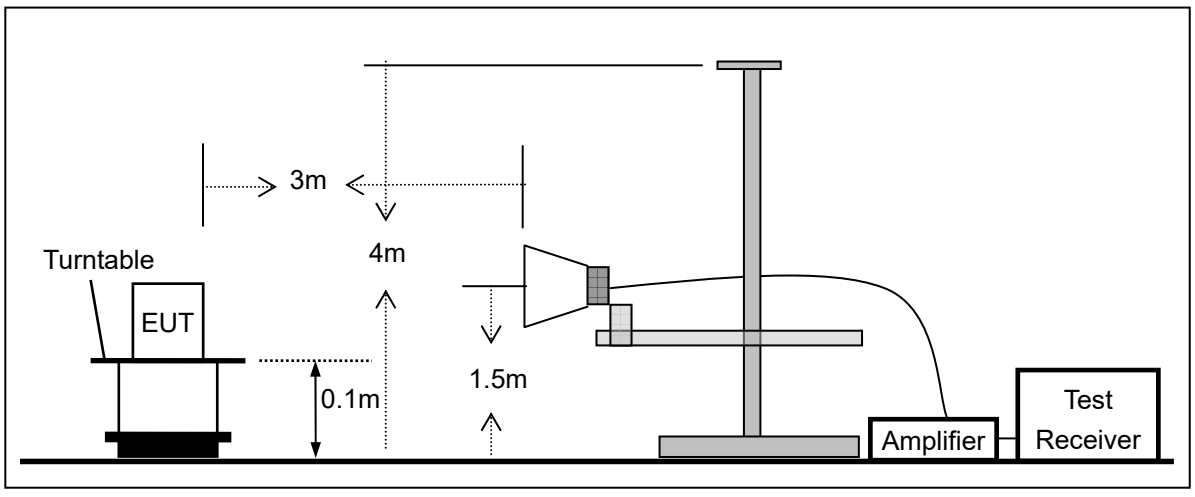
For Connect to PC:



(EUT: Interactive Touch Screen)

5.1.2. Block diagram of test setup (In chamber)





(EUT: Interactive Touch Screen)

5.2. Measuring Standard

FCC Part 15, Subpart B, Class B ANSI C63.4: 2014

5.3. Radiated Emission Limits (Class B)

Frequency MHz	Distance Meters	Field Strengths Limit	
		μV/m	dB(μV)/m
30 ~ 88	10	100	30.0
88 ~ 216	10	150	33.5
216 ~ 960	10	200	36.0
960 ~ 1000	10	500	44.0

Frequency (GHz)	Distance (Meters)	Field Strengths Limit	
		Average (dBμV/m)	Peak (dBμV/m)
1~6	3	54	74

Remark：(1) Emission level (dB)μV = 20 log Emission level μV/m
(2) The smaller limit shall apply at the cross point between two frequency bands.
(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

5.4. EUT Configuration on Measurement

The FCC Class B regulations test method must be used to find the maximum emission during radiated emission measurement.

EUT : Interactive Touch Screen
Model Number : TWB-IB55

5.5. Operating Condition of EUT

5.5.1.Setup the EUT as shown on Section 5.1.

5.5.2.Turn on the power of all equipments.

5.5.3.Let the EUT work in measuring mode (AV in, Y+Pb+Pr in, HDMI in, USB Play, SD CARD play, VGA & Ping) and measure it.

5.6. Test Procedure

The EUT is placed on a turn table which is 0.1 meter high above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3/10 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Bilog antenna (calibrated by Dipole Antenna) is used as a receiving antenna. Both horizontal and vertical polarization of the antenna are set on test.

The bandwidth of the Receiver (ESU26) is set at 120kHz.

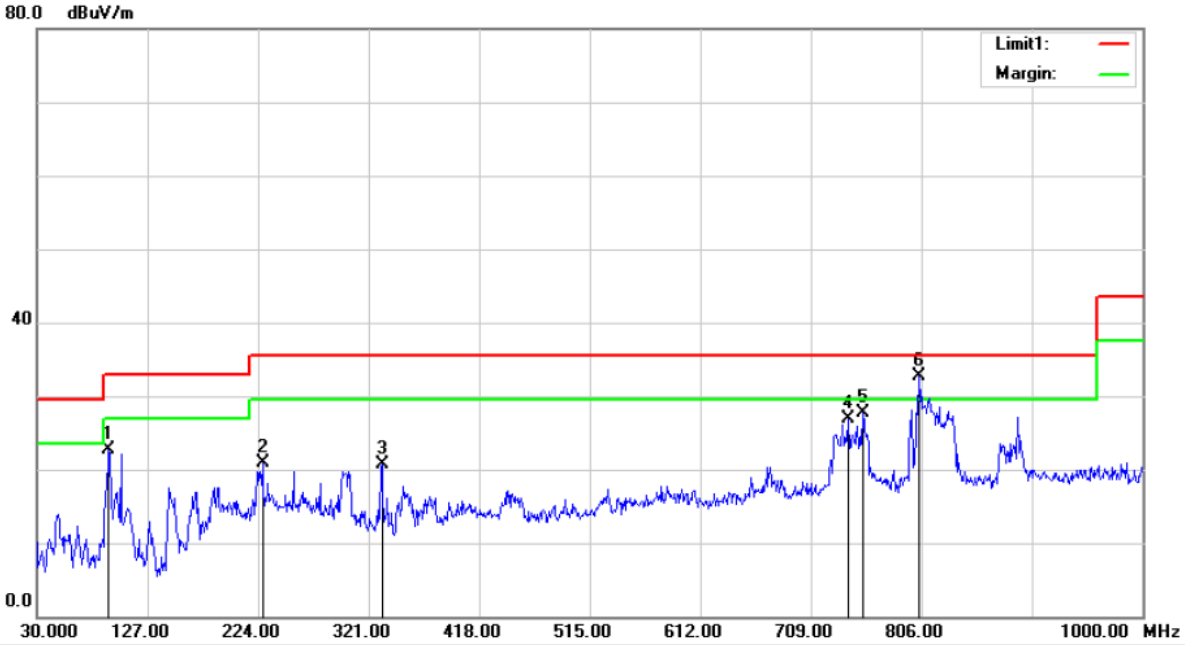
All the modes were tested and the data of the worst modes (VGA(1920*1080) & Ping) are attached the following pages.

5.7. Measuring Results

PASS.

The frequency range from 30MHz to 6000MHz is investigated.

Please refer to the following pages.



Site :10m Chamber #1
Limit: (RE 10M)FCC 15 Class B
EUT: Interactive Touch Screen
M/N: TWB-IB55
Mode:VGA(1920X1080)+PING
Note:

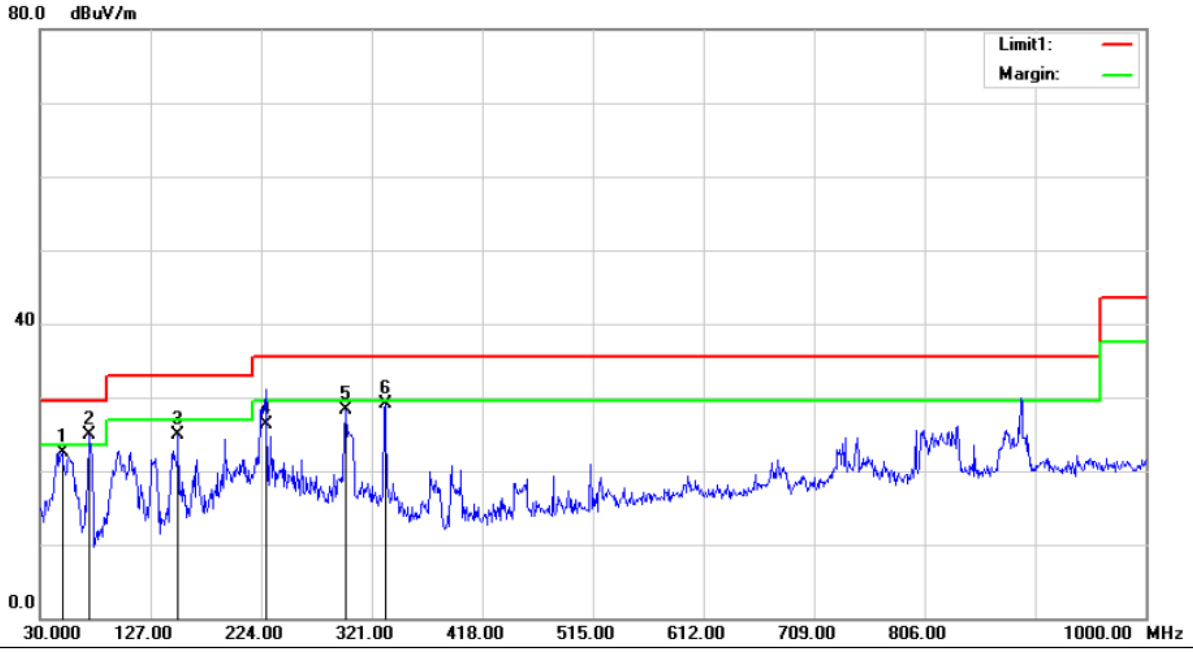
Polarization: *Horizontal*
Power: AC 120V/60Hz

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		93.0500	56.24	-33.48	22.76	33.00	-10.24	QP	400	183	
2		227.8800	52.25	-31.28	20.97	35.50	-14.53	QP	400	351	
3		332.6400	49.46	-28.74	20.72	35.50	-14.78	QP	308	6	
4		741.9800	48.48	-21.49	26.99	35.50	-8.51	QP	208	359	
5		754.5900	48.95	-21.28	27.67	35.50	-7.83	QP	208	359	
6	*	804.0600	53.19	-20.50	32.69	35.50	-2.81	QP	108	330	

*:Maximum data x:Over limit I:over margin

Operator: CSL



Site :10m Chamber #1
Limit: (RE 10M)FCC 15 Class B
EUT: Interactive Touch Screen
M/N: TWB-IB55
Mode:VGA(1920X1080)+PING
Note:

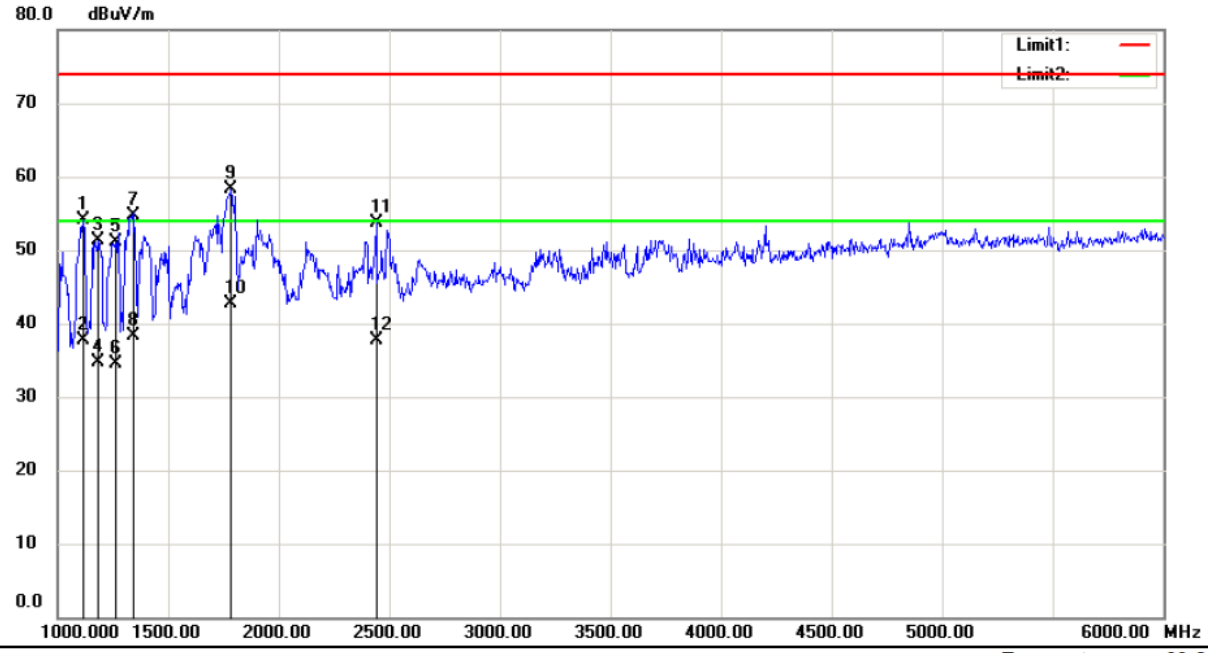
Polarization: *Vertical*
Power: AC 120V/60Hz

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		49.4000	52.43	-29.91	22.52	29.50	-6.98	QP	400	91	
2	*	73.6500	59.44	-34.58	24.86	29.50	-4.64	QP	200	185	
3		151.2500	59.58	-34.66	24.92	33.00	-8.08	QP	200	174	
4		227.8800	56.63	-30.23	26.40	35.50	-9.10	QP	100	46	
5		298.6900	56.66	-28.34	28.32	35.50	-7.18	QP	100	127	
6		332.6400	56.62	-27.46	29.16	35.50	-6.34	QP	100	359	

*:Maximum data x:Over limit !:over margin

Operator: CSL



Site 3m Chamber #1 Polarization: *Horizontal* Temperature: 22 C

Limit: (RE)FCC PART 15 CLASS B PEAK Power: AC 120V/50Hz Humidity: 50 %

EUT: INTERACTIVE TOUCH SCREEN

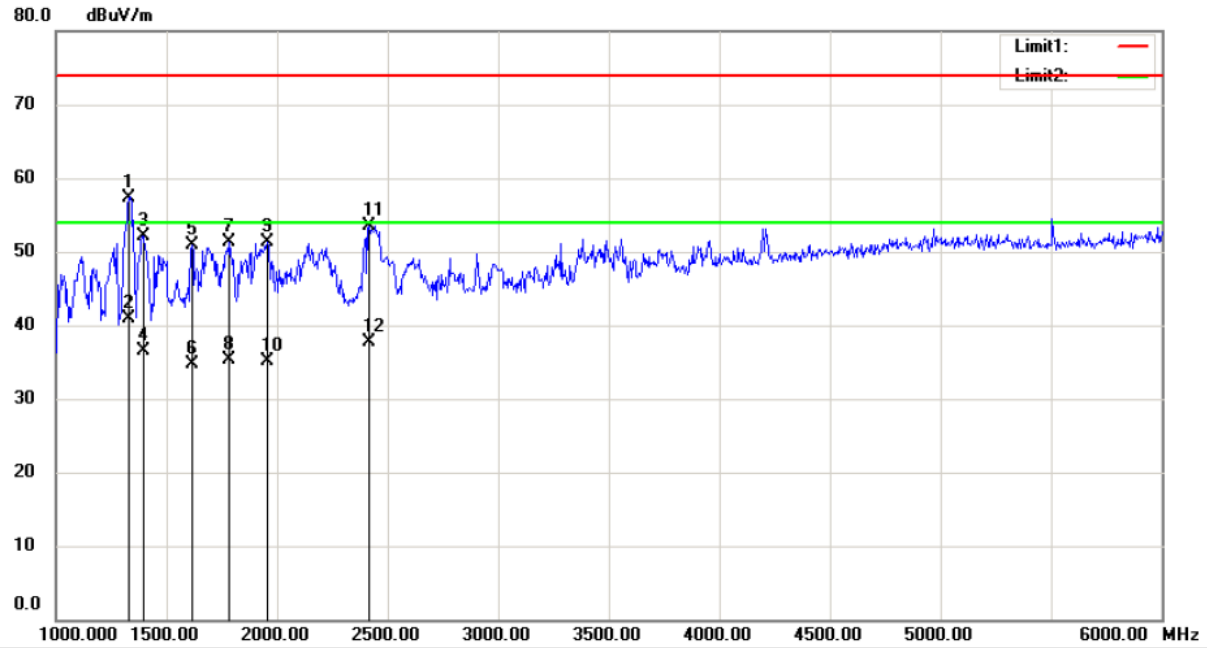
M/N: TWB-IB55

Mode:VGA(1920*1080)&Ping

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		1115.000	67.23	-13.10	54.13	74.00	-19.87	peak			
2		1115.000	50.87	-13.10	37.77	54.00	-16.23	AVG			
3		1180.000	64.04	-12.77	51.27	74.00	-22.73	peak			
4		1180.000	47.57	-12.77	34.80	54.00	-19.20	AVG			
5		1260.000	63.38	-12.35	51.03	74.00	-22.97	peak			
6		1260.000	46.93	-12.35	34.58	54.00	-19.42	AVG			
7		1340.000	66.59	-11.93	54.66	74.00	-19.34	peak			
8		1340.000	50.26	-11.93	38.33	54.00	-15.67	AVG			
9		1785.000	68.65	-10.35	58.30	74.00	-15.70	peak			
10	*	1785.000	53.05	-10.35	42.70	54.00	-11.30	AVG			
11		2440.000	61.68	-8.03	53.65	74.00	-20.35	peak			
12		2440.000	45.80	-8.03	37.77	54.00	-16.23	AVG			

*:Maximum data x:Over limit !:over margin Operator: Alan



Site 3m Chamber #1 Polarization: *Vertical* Temperature: 22 C

Limit: (RE)FCC PART 15 CLASS B PEAK Power: AC 120V/50Hz Humidity: 50 %

EUT: INTERACTIVE TOUCH SCREEN

M/N: TWB-IB55

Mode:VGA(1920*1080)&Ping

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		1330.000	69.38	-11.99	57.39	74.00	-16.61	peak			
2	*	1330.000	52.94	-11.99	40.95	54.00	-13.05	AVG			
3		1395.000	63.83	-11.64	52.19	74.00	-21.81	peak			
4		1395.000	48.16	-11.64	36.52	54.00	-17.48	AVG			
5		1615.000	61.74	-10.79	50.95	74.00	-23.05	peak			
6		1615.000	45.56	-10.79	34.77	54.00	-19.23	AVG			
7		1785.000	61.57	-10.35	51.22	74.00	-22.78	peak			
8		1785.000	45.75	-10.35	35.40	54.00	-18.60	AVG			
9		1955.000	61.21	-9.90	51.31	74.00	-22.69	peak			
10		1955.000	44.95	-9.90	35.05	54.00	-18.95	AVG			
11		2415.000	61.67	-8.12	53.55	74.00	-20.45	peak			
12		2415.000	45.92	-8.12	37.80	54.00	-16.20	AVG			

*:Maximum data x:Over limit I:over margin Operator: Alan

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