

FCC TEST REPORT for Recordex USA, Inc.

Interactive Flat Panel

Model No.: ST-700

FCC ID: 2ADKE-ST-700C

Prepared for Address		Recordex USA, Inc. 10-50 46th Avenue, Long Isiand City, NY 11101
Prepared by Address	:	Accurate Technology Co., Ltd. F1, Bldg. A&D, Changyuan New Material Port, Keyuan Rd., Science & Industry Park, Nanshan District Shenzhen 518057, P.R. China
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Report No.	:	ATE20161916
Date of Test	:	September 10-20, 2016
Date of Report	:	September 20, 2016



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Test Report

Applicant: Recordex USA, Inc.Manufacturer: Recordex USA, Inc.EUT Description: Interactive Flat PanelModel No.: ST-700Trade Name: RECORDEX

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart B Class B ANSI C63.4: 2014

The device described above is tested by Accurate Technology Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart B Class B limits both radiated and conducted emissions. The measurement results are contained in this test report and Accurate Technology Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Accurate Technology Co., Ltd.

Date of Test : Date of Report:

September 10-20, 2016 September 20, 2016

Prepared by :

(Bob Wang, Engineer)

Approved & Authorized Signer :_

(Sean Liu, Manager)



1. TEST RESULTS SUMMARY

Test Items	Test Standard	Test Results
Power Line Conducted Emission	FCC Part 15 Subpart B	Pass
Radiated Emission	FCC Part 15 Subpart B	Pass

Remark: "N/A" Means not applicable



2. GENERAL INFORMATION

2.1.Description of Device (EUT)

Product	:	Interactive Flat Panel
Model No.	:	ST-700
Test Voltage	:	INPUT: AC 100240V~50/60Hz 3.1A
Trade Name Remark(s)	:	RECORDEX The EUT highest operating frequency provided by Manufacturer is 1.2GHz and include include 2.4GHz and 5GHz wifi, the radiated emission measurement shall be made up to 40 GHz.
Applicant Address	:	Recordex USA, Inc. 10-50 46th Avenue, Long Isiand City, NY 11101
Manufacturer Address	:	Recordex USA, Inc. 10-50 46th Avenue, Long Isiand City, NY 11101
Date of sample receiver Date of Test	:	September 8, 2016 September 10-20, 2016



2.2. Accessory and Auxiliary Equipment

PC	:	Manufacturer: DELL M/N: DMC S/N: HZXLM1
media player	:	Manufacturer: TOSHIBA M/N: STOR.E TV+ S/N: 101200005
USB Memory Disk	<:	Manufacturer: Smartocean M/N: 3611S/N: 101200005
LCD Monitor	:	Manufacturer: DELL M/N: 1704FPTt S/N: 434
Keyboard	:	Manufacturer: DELL M/N: SK-8110 S/N: LR86682
Mouse	:	Manufacturer: DELL M/N: M071KC
Earphone	:	S/N: 410042355 Manufacturer: APPLE M/N: iPhone (Matching earphone)
HDMI Line	:	S/N: 7M6369W3VQ5 HDMI line length of 1 meters, have shield and magnetic ring
VGA Line	:	VGA line length of 1 meters, have shield and magnetic ring
AV Line	:	AV line length of 0.8 meters, have shield and magnetic ring
DP Line	:	DP line length of 0.8 meters, have shield and magnetic ring
TOUCH Line	:	DP line length of 1.2 meters, have shield and magnetic ring
Net port line	:	Net port length of 4 meters, have shield and magnetic ring



2.3. Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen

Listed by FCC The Registration Number is 253065 Listed by FCC The Registration Number is 752051
Listed by Industry Canada The Registration Number is 5077A-1 Listed by Industry Canada

The Registration Number is 5077A-2

Accredited by China National Accreditation Committee for Laboratories The Certificate Registration Number is L3193

Name of Firm	:	Accurate Technology Co., Ltd.
Site Location	:	F1, Bldg. A&D, Changyuan New Material Port, Keyuan Rd.
		Science & Industry Park, Nanshan District, Shenzhen
		518057, P.R. China

2.4. Measurement Uncertainty

Conducted Emission Expanded Uncertainty	=	2.23dB, k=2
Power Disturbance Expanded Uncertainty	=	2.92 dB, k=2
Radiated emission expanded uncertainty (9kHz-30MHz)	=	3.08dB, k=2
Radiated emission expanded uncertainty (30MHz-1000MHz)	=	4.42dB, k=2
Radiated emission expanded uncertainty (Above 1GHz)	=	4.06dB, k=2



3. MEASURING DEVICE AND TEST EQUIPMENT

3.1. For Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.
		A 11 /				Interval
1.	Spectrum Analyzer	•	E7405A	MY45115511		1 Year
2.	Spectrum Analyzer		FSV40	101495	Jan.09, 2016	1 Year
3.	Test Receiver		ESCS30	100307	Jan.09, 2016	1 Year
4.	Test Receiver	Rohde& Schwarz		100396/003	Jan.09, 2016	1 Year
5.	Test Receiver	Rohde& Schwarz		101526/003	Jan.09, 2016	1 Year
6.	Test Receiver	Rohde& Schwarz		101817	Jan.09, 2016	1 Year
7.	Bilog Antenna	Schwarzbeck	VULB9163	9163-194	Jan.14, 2016	1 Year
8.	Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan.14, 2016	1 Year
9.	LogPer.Antenna	Schwarzbeck	VUSLP 9111B	9111B-074	Jan.14, 2016	1 Year
10.	Biconical Broad Band Antenna	Schwarzbeck	VHBB 9124+BBA 9106	9124-617	Jan.14, 2016	1 Year
11.	Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan.14, 2016	1 Year
12.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan.14, 2016	1 Year
13.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1067	Jan.14, 2016	1 Year
14.	Vertical Active Monopole Antenna	Schwarzbeck	VAMP 9243	9243-370	Jan.14, 2016	1 Year
15.	RF Switching Unit+PreAMP	Compliance Direction	RSU-M2	38322	Jan.09, 2016	1 Year
16.	Pre-Amplifier	Agilent	8447D	294A10619	Jan.09, 2016	1 Year
17.	Pre-Amplifier	Rohde&Schwarz	CBLU11835 40-01	3791	Jan.09, 2016	1 Year
18.	50 Coaxial Switch	Anritsu Corp	MP59B	6200237248	Jan.09, 2016	1 Year
19.	50 Coaxial Switch	Anritsu Corp	MP59B	6200506474	Jan.09, 2016	1 Year
20.	RF Coaxial Cable	Schwarzbeck	N-5m	No.1	Jan.09, 2016	1 Year
21.	RF Coaxial Cable	Schwarzbeck	N-1m	No.6	Jan.09, 2016	1 Year
22.	RF Coaxial Cable	Schwarzbeck	N-1m	No.7	Jan.09, 2016	1 Year
23.	RF Coaxial Cable	SUHNER	N-3m	No.8	Jan.09, 2016	1 Year
24.	RF Coaxial Cable	RESENBERGER		No.9		1 Year
25.	RF Coaxial Cable	SUHNER	N-6m	No.10	Jan.09, 2016	1 Year
26.	RF Coaxial Cable	RESENBERGER	N-12m	No.11	Jan.09, 2016	1 Year
27.	RF Coaxial Cable	RESENBERGER	N-0.5m	No.12	Jan.09, 2016	1 Year
28.	RF Coaxial Cable	SUHNER	N-2m	No.13	Jan.09, 2016	1 Year
29.	RF Coaxial Cable	SUHNER	N-0.5m	No.15	Jan.09, 2016	1 Year
30.	RF Coaxial Cable	SUHNER	N-2m	No.16	Jan.09, 2016	1 Year
31.	RF Coaxial Cable	RESENBERGER	N-6m	No.17	Jan.09, 2016	1 Year



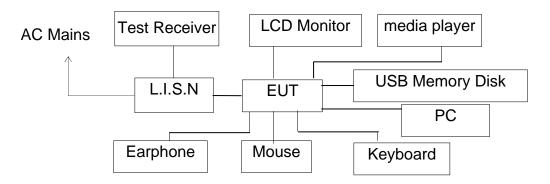
3.2. The Equipment Used to Measure Conducted Disturbance (L.I.S.N)

ltom	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.		
nem	Lquipment			Senai No.	Last Cal.	Interval		
1.	Test Receiver	Rohde & Schwarz	ESCS30	100307	Jan.09, 2016	1 Year		
2.	Test Receiver	Rohde & Schwarz		100396/003	Jan.09, 2016	1 Year		
3.	Test Receiver	Rohde & Schwarz		101526/003	Jan.09, 2016	1 Year		
4.	L.I.S.N.	Schwarzbeck	NLSK8126	8126431	Jan.09, 2016	1 Year		
5.	L.I.S.N.	Rohde & Schwarz		100305	Jan.09, 2016	1 Year		
6.	L.I.S.N.	Rohde & Schwarz		100310	Jan.09, 2016	1 Year		
7.	L.I.S.N.	Rohde & Schwarz		100132	Jan.09, 2016	1 Year		
8.	Pulse Limiter	Rohde & Schwarz		100305	Jan.09, 2016	1 Year		
9.	Pulse Limiter	Rohde & Schwarz		100312	Jan.09, 2016	1 Year		
10.	Pulse Limiter	Rohde & Schwarz		100815	Jan.09, 2016	1 Year		
11.	50Ω Coaxial Switch	Anritsu Corp	MP59B	6200283936	Jan.09, 2016	1 Year		
12.	50Ω Coaxial Switch	Anritsu Corp	MP59B	6200283933	Jan.09, 2016	1 Year		
13.	50Ω Coaxial Switch	Anritsu Corp	MP59B	6200506474	Jan.09, 2016	1 Year		
14.	VOLTAGE PROBE	Schwarzbeck	TK9416	N/A	Jan.09, 2016	1 Year		
15.	RF CURRENT PROBE	Rohde & Schwarz	EZ-17	100048	Jan.09, 2016	1 Year		
16.	8-Wire Impedance Stabilisation Network	Schwarzbeck	CAT5 8158	8158-0035	Jan.09, 2016	1 Year		
17.	RF Coaxial Cable	SUHNER	N-2m	No.2	Jan.09, 2016	1 Year		
18.	RF Coaxial Cable	SUHNER	N-2m	No.3	Jan.09, 2016	1 Year		
19.	RF Coaxial Cable	SUHNER	N-2m	No.14	Jan.09, 2016	1 Year		
Expanded Uncertainty: U= 2.23dB, k=2								



4. POWER LINE CONDUCTED MEASUREMENT

4.1.Block Diagram of Test Setup



(EUT: Interactive Flat Panel)

4.2.Test mode description

Test mode 1: USB IN Test mode 2: AV IN Test mode 3: VGA IN Test mode 4: DP IN Test mode 5: HDMI IN Test mode 6: Memory Playing

4.3. Power Line Conducted Emission Measurement Limits

Frequency	Limit d	Β(μV)					
(MHz)	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 sh	all apply at the transition fre	quencies.					
NOTE2: The limit decreases linearly with the logarithm of the frequency in the							
range 0.15MHz to	o 0.50MHz.						

4.4.Configuration of EUT on Measurement

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.



4.5. Operating Condition of EUT

- 4.5.1.Setup the EUT and simulator as shown as Section 4.1.
- 4.5.2.Turn on the power of all equipment.
- 4.5.3.Let the EUT work in test mode and measure it.

4.6.Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2014 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

4.7. Power Line Conducted Emission Measurement Results

PASS.

The frequency range from 150kHz to 30MHz is checked.

Emissions attenuated more than 20 dB below the permissible value are not reported.

The spectral diagrams are attached as below.



CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	USB IN	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	N 120V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 14:59:55	

SCAN TABLE: "V 150K-30MHz fin"

Short Desci			SUB STD VTE	RM2 1.70		
Start	Stop	Step –	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak Average	1.0 s	9 kHz	LISN(ESH3-Z5)



MEASUREMENT RESULT: "PR-0910-001 fin"

2016-9-10 15:01

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000 0.770000 1.234000 2.486000 5.424500 15.198500	61.00 49.50 47.30 43.10 41.80 41.30	10.3 11.5 11.6 11.7 11.8 11.9	66 56 56 60 60	5.0 6.5 8.7 12.9 18.2 18.7	QP QP QP QP QP QP QP	N N N N N	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-001_fin2"

			_								
2016-9-10 15:01											
cy Level	Transd	Limit	Margin	Detector	Line	PE					
Hz dBµV	dB	dBµV	dB								
0 42.60	11.0	50	7.4	AV	N	GND					
0 40.70	11.5	46	5.3	AV	Ν	GND					
39.80	11.6	46	6.2	AV	Ν	GND					
36.80	11.7	46	9.2	AV	Ν	GND					
35.10	11.8	50	14.9	AV	Ν	GND					
00 40.10	11.9	50	9.9	AV	Ν	GND					
	cy Level Hz dBµV 00 42.60 00 40.70 00 39.80 00 36.80 00 35.10	Cy Level Transd Hz dBµV dB 00 42.60 11.0 00 40.70 11.5 00 39.80 11.6 00 36.80 11.7 00 35.10 11.8	Cy Level Transd Limit dz dBµV dB dBµV 00 42.60 11.0 50 00 40.70 11.5 46 00 39.80 11.6 46 00 36.80 11.7 46 00 35.10 11.8 50	CyLevelTransdLimitMarginHzdBµVdBdBµVdB0042.6011.0507.40040.7011.5465.30039.8011.6466.20036.8011.7469.20035.1011.85014.9	Cy Level Transd Limit Margin Detector Hz dBµV dB dBµV dB 00 42.60 11.0 50 7.4 AV 00 40.70 11.5 46 5.3 AV 00 39.80 11.6 46 6.2 AV 00 36.80 11.7 46 9.2 AV 00 35.10 11.8 50 14.9 AV	Cy Level Transd Limit Margin Detector Line Hz dBµV dB dBµV dB 00 42.60 11.0 50 7.4 AV N 00 40.70 11.5 46 5.3 AV N 00 39.80 11.6 46 6.2 AV N 00 36.80 11.7 46 9.2 AV N 00 35.10 11.8 50 14.9 AV N					

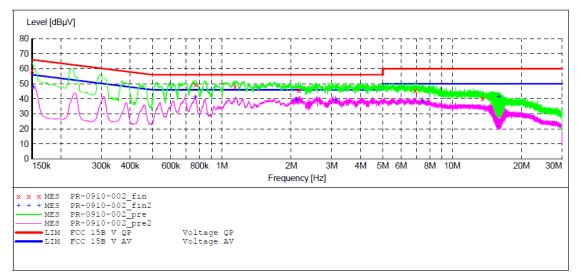


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	USB IN	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	L 120V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 15:02:26	

SCAN TABLE: "V 150K-30MHz fin"

Short Desc		SUB STD VTE	RM2 1.70			
	Stop	1	Detector	Meas.	IF	Transducer
	Frequency			Time	Bandw.	
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak Average	1.0 s	9 kHz	LISN(ESH3-Z5)



MEASUREMENT RESULT: "PR-0910-002 fin"

2016-9-10 15:04

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000 0.770000 1.140000 2.157500 6.914000 13.538000	58.90 49.50 48.00 45.60 45.30 40.10	10.3 11.5 11.6 11.7 11.8 11.9	66 56 56 60 60	7.1 6.5 8.0 10.4 14.7 19.9	~	L1 L1 L1 L1 L1 L1	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-002 fin2"

2016-9-10 15:04 Frequency Level Transd Limit Margin Detector Line PE dBµV MHz dB dBµV dB 0.152000 47.60 10.4 56 8.3 AV L1GND 5.1 AV 6.8 AV 6.9 AV 40.90 11.5 11.7 11.7 46 46 0.768000 GND L12.108000 39.20 L1GND 46 50 50 3.120500 39.10 L1GND 11.6 AV 8.4 AV 38.40 41.60 11.8 11.9 7.440500 L1GND 15.896000 GND L1

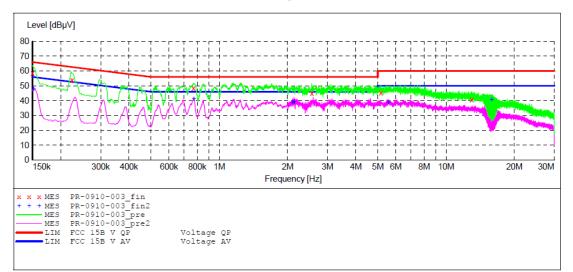


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel M/N:ST-700
Manufacturer:	Recordex USA
Operating Condition:	DP IN
Test Site:	2#Shielding Room
Operator:	DING
Test Specification:	L 120V/60Hz
Comment:	Report NO.:ATE20161916
Start of Test:	2016-9-10 / 15:05:03

SCAN TABLE: "V 150K-30MHz fin"

DCA.	м тарыы.	, v 1501	(-Somiz	<u></u>			
Short Description:				_SUB_STD_VTE	RM2 1.70		
St	art	Stop	Step	Detector	Meas.	IF	Transducer
Fr	equency	Frequency	Width		Time	Bandw.	
15	0.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak	1.0 s	9 kHz	LISN(ESH3-Z5)
				Average			



MEASUREMENT RESULT: "PR-0910-003_fin"

2016-9-10 15:07

Frequency MHz		Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000 0.224000 0.768000 2.558000 5.159000 12.984500	58.60 54.10 48.40 45.00 45.40 40.60	10.3 10.7 11.5 11.7 11.8 11.9	66 63 56 60 60	7.4 8.6 7.6 11.0 14.6 19.4	QP QP QP	L1 L1 L1 L1 L1 L1	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-003_fin2"

2016-9-10 15:07

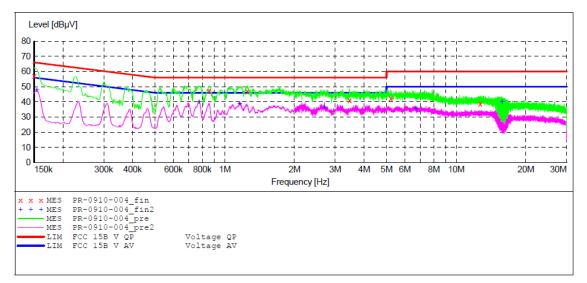
10-9-10 15:	07						
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.152000	47.70	10.4	56	8.2	AV	L1	GND
0.772000	40.90	11.5	46	5.1	AV	L1	GND
2.103500	38.70	11.7	46	7.3	AV	L1	GND
2.135000	39.20	11.7	46	6.8	AV	L1	GND
5.555000	38.80	11.8	50	11.2	AV	L1	GND
15.896000	40.80	11.9	50	9.2	AV	L1	GND



CONDUCTED EMISSION STANDARD FCC PART 15B

SCAN TABLE: "V 150K-30MHz fin"

Short Descr			SUB STD VTE	RM2 1.70		
Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak	1.0 s	9 kHz	LISN(ESH3-Z5)
			Average			



MEASUREMENT RESULT: "PR-0910-004 fin"

2016-9-10 15:09

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000 0.856000 1.250000 3.462500 5.213000 12.687500	57.10 47.40 46.80 41.10 42.40 38.80	10.3 11.6 11.6 11.7 11.8 11.9	66 56 56 60 60	8.9 8.6 9.2 14.9 17.6 21.2	~ -	N N N N N	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-004 fin2"

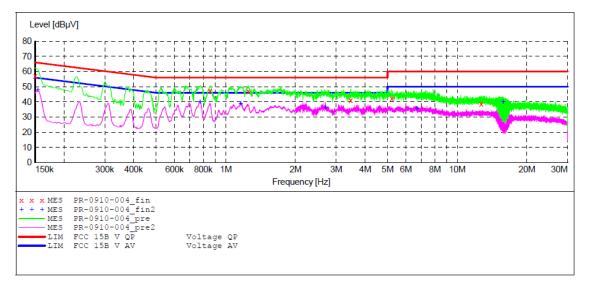
2016-9-10 15:09 Frequency Level Transd Limit Margin Detector Line PE MHz dBµV dB dBµV dB 0.154000 47.70 10.4 56 8.1 AV Ν GND 6.2 AV 0.774000 39.80 11.5 46 GND Ν 38.80 1.160000 11.6 46 7.2 AV Ν GND 11.7 11.8 9.5 AV 14.4 AV 2.693000 36.50 46 Ν GND N 35.60 6.689000 50 GND 15.815000 40.00 11.9 50 10.0 AV Ν GND



CONDUCTED EMISSION STANDARD FCC PART 15B

SCAN TABLE: "V 150K-30MHz fin"

Short Descrip			JB_STD_VTER	M2 1.70		
Start S	top	Step	Detector	Meas.	IF	Transducer
Frequency F	requency	Width		Time	Bandw.	
150.0 kHz 3	0.0 MHz	4.5 kHz	QuasiPeak	1.0 s	9 kHz	LISN(ESH3-Z5)
			Average			



MEASUREMENT RESULT: "PR-0910-004 fin"

2016-9-10 15:09

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000 0.856000 1.250000 3.462500 5.213000 12.687500	57.10 47.40 46.80 41.10 42.40 38.80	10.3 11.6 11.6 11.7 11.8 11.9	66 56 56 60 60	8.9 8.6 9.2 14.9 17.6 21.2	~ -	N N N N N	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-004 fin2"

2016-9-10 15:09 Frequency Level Transd Limit Margin Detector Line PE MHz dBµV dB dBµV dB 0.154000 47.70 10.4 56 8.1 AV Ν GND 11.5 6.2 AV 0.774000 39.80 46 GND Ν 38.80 1.160000 11.6 46 7.2 AV Ν GND 11.7 11.8 9.5 AV 14.4 AV 2.693000 36.50 46 Ν GND N 35.60 6.689000 50 GND 15.815000 40.00 11.9 50 10.0 AV Ν GND

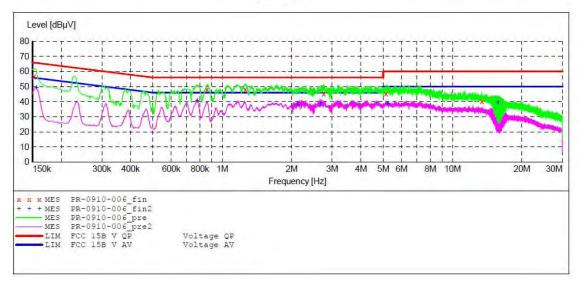


CONDUCTED EMISSION STANDARD FCC PART 15B

Operating Condition:		M/N:ST-700	
Test Site: Operator: Test Specification:	2#Shielding Room DING L 120V/60Hz		
Comment:	Report NO.:ATE20161916 2016-9-10 / 15:13:30		

SCAN TABLE: "V 150K-30MHz fin"

Short Desc	ription:		_SUB_STD_VTE	RMZ 1.70		
Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak	1.0 s	9 kHz	LISN (ESH3-Z5)
			Average			



MEASUREMENT RESULT: "PR-0910-006 fin"

2016-9-10 15:15

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE	
0.152000	56.70	10.4	66	9.2	QP	L1	GND	
0.858000	47.90	11.6	56	8.1	QP	L1	GND	
1.256000	48.30	11.6	56	7.7	QP	L1	GND	
2.756000	45.50	11.7	56	10.5	QP	L1	GND	
5.141000	45.50	11.8	60	14.5	QP	L1	GND	
13.394000	40.10	11.9	60	19.9	QP	L1	GND	

MEASUREMENT RESULT: "PR-0910-006 fin2"

2016-9-10 15:15 Frequency Level Transd Limit Margin Detector Line PE MHz dBµV dB dBuV dB 0.156000 49.20 10.4 6.5 AV L1 56 GND 0.778000 40.50 11.5 46 5.5 AV L1 GND 2,117000 11.7 7.9 AV 38.10 46 L1 GND 11.7 46 50 2.661500 7.1 AV 38.90 L1 GND 11.8 50 11.1 AV 11.9 50 10.3 AV 5.226500 38.90 L1 GND 15.729500 39.70 L1 GND

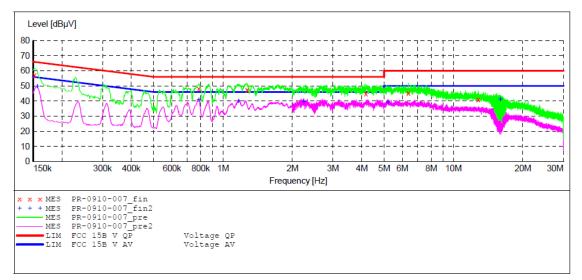


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	VGA IN	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	L 120V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 15:16:00	

SCAN TABLE: "V 150K-30MHz fin"

Short Description:			SUB_STD_VTE	RM2 1.70		
Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak Average	1.0 s	9 kHz	LISN(ESH3-Z5)



MEASUREMENT RESULT: "PR-0910-007_fin"

0	01	6 - 9 - 1	0 1	E.17	
2	UΤ	0-9-1	U 1	5:17	

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.152000 0.784000 1.272000 4.164500 6.365000 12.813500	57.00 48.30 47.30 45.00 45.50 41.20	10.4 11.6 11.6 11.8 11.8 11.9	66 56 56 60 60	8.9 7.7 8.7 11.0 14.5 18.8	QP QP QP QP QP QP QP	L1 L1 L1 L1 L1 L1	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-007_fin2"

201	6-9-10 15:1	7						
	Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
	MHZ	ασμν	ав	ασμν	ав			
	0.156000	49.70	10.4	56	6.0	AV	L1	GND
	0.784000	40.60	11.6	46	5.4	AV	L1	GND
	1.166000	40.00	11.6	46	6.0	AV	L1	GND
	2.238500	39.30	11.7	46	6.7	AV	L1	GND
	5.190500	39.00	11.8	50	11.0	AV	L1	GND
	15.959000	40.90	11.9	50	9.1	AV	L1	GND

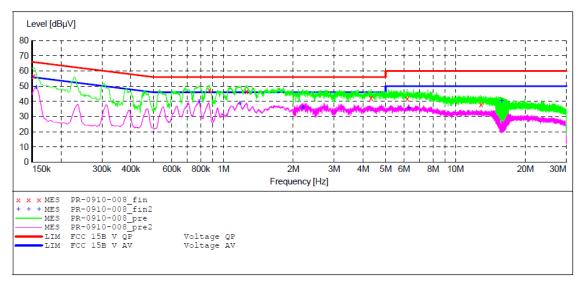


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel M	4/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	VGA IN	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	N 120V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 15:18:19	

SCAN TABLE: "V 150K-30MHz fin"

Short Desci	ription:	S	UB_STD_VTER	RM2 1.70		
Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak	1.0 s	9 kHz	LISN(ESH3-Z5)
			Average			



MEASUREMENT RESULT: "PR-0910-008 fin"

2016-9-10 15:20

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.152000 0.870000 1.258000 4.326500 6.194000 12.863000	56.80 47.40 46.70 42.10 41.70 38.10	10.4 11.6 11.6 11.8 11.8 11.9	66 56 56 60 60	9.1 8.6 9.3 13.9 18.3 21.9	~	N N N N N	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-008_fin2"

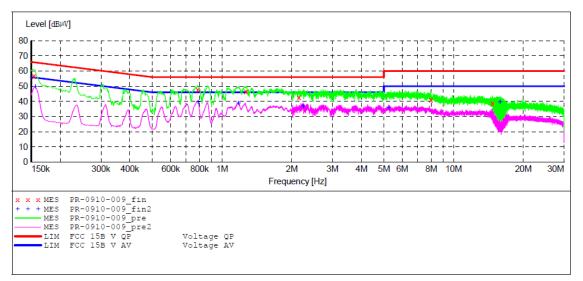
2016-9-10 15:20 Frequency Level Transd Limit Margin Detector Line PE dB dBµV dBµV MHz dB 10.4 0.156000 49.30 56 6.4 AV Ν GND 11.6 39.90 6.1 AV 0.786000 46 Ν GND 38.80 7.2 1.178000 11.6 46 AV Ν GND 2.198000 35.90 11.7 46 10.1 AV Ν GND 50 50 11.8 11.9 35.60 14.4 AV 9.8 AV 6.293000 Ν GND 15.801500 40.20 Ν GND



CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	HDMI IN	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	N 120V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 15:20:29	

SCAN TABLE: "V 150K-30MHz fin" CAN TABLE: "V 1997. Short Description: _____SUB_STD_VTERM2 1.70 IF Detector Meas. Start Stop Step Transducer Frequency Frequency Width Time Bandw. 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz LISN(ESH3-Z5) Average



MEASUREMENT RESULT: "PR-0910-009 fin"

2016-9-10 15:22

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.154000 0.784000 1.266000 2.148500 7.976000 14.712500	56.50 47.60 46.50 42.80 41.20 38.60	10.4 11.6 11.6 11.7 11.8 11.9	66 56 56 60 60	9.3 8.4 9.5 13.2 18.8 21.4	QP QP QP QP QP QP	N N N N N	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-009 fin2"

2016-9-10 15:22 Frequency Level Transd Limit Margin Detector Line PE MHz dBµV dB dBµV dB 10.4 0.156000 49.50 56 6.2 AV Ν GND 0.788000 39.70 11.6 46 6.3 AV GND Ν 38.80 1.178000 7.2 11.6 46 AV GND Ν 2.238500 36.70 11.7 46 9.3 AV Ν GND 35.70 39.70 11.8 11.9 14.3 AV 10.3 AV 5.240000 50 Ν GND 15.878000 50 Ν GND

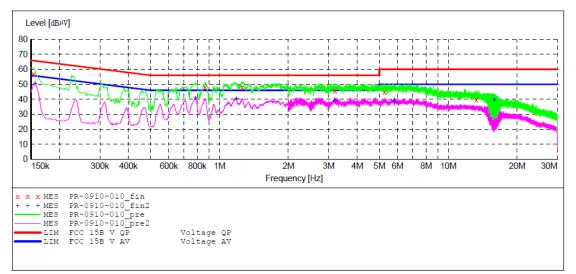


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	HDMI IN	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	L 120V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 15:22:47	

SCAN TABLE: "V 150K-30MHz fin"

Short Desc		K SOMIZ	_SUB_STD_VTER	RM2 1.70		
Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak Average	1.0 s	9 kHz	LISN(ESH3-Z5)



MEASUREMENT RESULT: "PR-0910-010 fin"

2016-9-10 15:25

Frequency MHz		Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.154000 0.864000 1.256000 3.192500 5.253500 13.245500	56.70 48.20 48.00 45.80 45.10 39.80	10.4 11.6 11.6 11.7 11.8 11.9	66 56 56 60 60	9.1 7.8 8.0 10.2 14.9 20.2	QP QP	L1 L1 L1 L1 L1 L1	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-010 fin2"

2016-9-10 15:25

Frequency Level Transd Limit Margin Detector Line PE dB dBµV dBµV dB MHz 50.3010.45640.5011.64640.2011.64639.1011.74638.7011.85039.4011.950 0.156000 5.4 AV GND L15.5 AV 0.784000 L1GND 5.8 AV 6.9 AV L11.182000 GND 3.192500 L1GND 11.3 AV 5.820500 L1GND 15.878000 10.6 AV L1GND

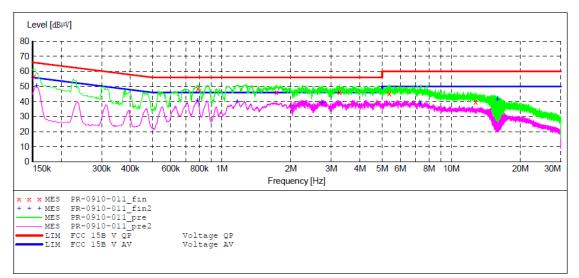


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	Memory Playing	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	L 120V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 15:25:28	

SCAN TABLE: "V 150K-30MHz fin"

Short Desc		n Somiz	SUB STD VTE	RM2 1.70			
Start	Stop	Step	Detector	Meas.	IF	Transducer	
Frequency	Frequency	Width		Time	Bandw.		
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak Average	1.0 s	9 kHz	LISN(ESH3-Z5)	



MEASUREMENT RESULT: "PR-0910-011 fin"

2016-9-10 15:27

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.152000 0.788000 1.730000 3.260000 5.366000 12.777500	56.60 48.50 46.30 46.20 45.50 39.80	10.4 11.6 11.6 11.7 11.8 11.9	66 56 56 60 60	9.3 7.5 9.7 9.8 14.5 20.2	~	L1 L1 L1 L1 L1 L1	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-011_fin2"

2016-9-10 15:27

• 4 /						
Level	Transd	Limit	Margin	Detector	Line	PE
dBµV	dB	dBµV	dB			
50.30	10.4	56	5.4	AV	ъ1	GND
40.60	11.6	46	5.4	AV	LТ	GND
39.80	11.6	46	6.2	AV	L1	GND
39 20	11 7	46	6.8	ΔV	т.1	GND
38.70	11.8	50	11.3	AV	Ll	GND
/1 30	11 0	E 0	07	7\ \ 7	т 1	GND
41.30	11.9	50	0.7	AV		GND
	Level dBµV 50.30 40.60	Level Transd dBµV dB 50.30 10.4 40.60 11.6 39.80 11.6 39.20 11.7 38.70 11.8	Level Transd Limit dBµV dB dBµV 50.30 10.4 56 40.60 11.6 46 39.80 11.6 46 39.20 11.7 46 38.70 11.8 50	Level Transd Limit Margin dBµV dB dBµV dB 50.30 10.4 56 5.4 40.60 11.6 46 5.4 39.80 11.6 46 6.2 39.20 11.7 46 6.8 38.70 11.8 50 11.3	Level Transd Limit Margin Detector dBµV dB dBµV dB 50.30 10.4 56 5.4 AV 40.60 11.6 46 5.4 AV 39.80 11.6 46 6.2 AV 39.20 11.7 46 6.8 AV 38.70 11.8 50 11.3 AV	Level Transd Limit Margin Detector Line dBµV dB dBµV dB dB Line Line 50.30 10.4 56 5.4 AV L1 40.60 11.6 46 5.4 AV L1 39.80 11.6 46 6.2 AV L1 39.20 11.7 46 6.8 AV L1 38.70 11.8 50 11.3 AV L1

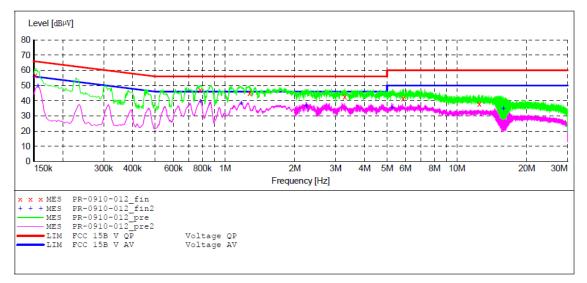


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	Memory Playing	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	N 120V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 15:27:58	

SCAN TABLE: "V 150K-30MHz fin"

Short Desc			_SUB_STD_VTE	RM2 1.70		
	1	1	Detector			Transducer
Frequency	Frequency	Width		Time	Bandw.	
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak Average	1.0 s	9 kHz	LISN(ESH3-Z5)



MEASUREMENT RESULT: "PR-0910-012 fin"

2016-9-10 15:44

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.152000 0.782000 1.278000 3.282500 5.861000 12.489500	56.60 47.10 44.80 42.80 41.60 38.00	10.4 11.6 11.6 11.7 11.8 11.9	66 56 56 60 60	11.2	QP QP	N N N N N	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-012 fin2"

2016-9-10 15:44 Frequency Level Transd Limit Margin Detector Line PE dBµV dB dBµV MHz dB 10.4 0.156000 49.80 56 5.9 AV Ν GND 11.6 0.786000 39.60 46 6.4 AV GND Ν 1.176000 38.40 46 7.6 AV GND 11.6 Ν 2.238500 36.40 11.7 46 9.6 AV Ν GND 35.40 11.8 11.9 14.6 AV 15.1 AV 5.240000 50 50 Ν GND 34.90 15.873500 Ν GND

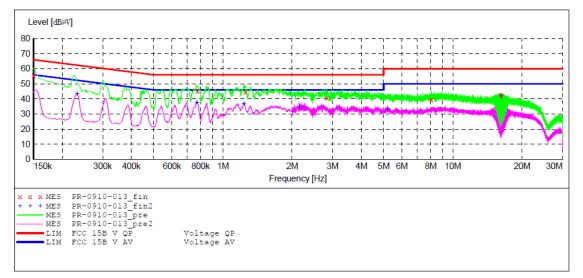


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	Memory Playing	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	N 240V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 16:02:57	

SCAN TABLE: "V 150K-30MHz fin"

Short Description:			_SUB_STD_VTER	RM2 1.70			
	Start	-	1	Detector			Transducer
	Frequency				Time	Bandw.	
	150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak Average	1.0 s	9 kHz	LISN(ESH3-Z5)



MEASUREMENT RESULT: "PR-0910-013 fin"

2016-9-10 16:	04						
Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
MHz	dBµV	dB	dBµV	dB			
0.150000	55.60	10.3	66	10.4	QP	Ν	GND
0.774000	45.40	11.5	56	10.6	QP	Ν	GND
1.250000	44.50	11.6	56	11.5	QP	Ν	GND
2.828000	40.60	11.7	56	15.4	QP	Ν	GND
8.066000	39.60	11.8	60	20.4	QP	Ν	GND
16.206500	42.80	11.9	60	17.2	ΏΡ	Ν	GND

MEASUREMENT RESULT: "PR-0910-013_fin2"

2016-9-10 1	6:04						
Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
MHz	dBµV	dB	dBµV	dB			
0.232000	43.30	10.8	52	9.1	AV	N	GND
0.770000	37.70	11.5	46	8.3	AV	Ν	GND
1.234000	36.80	11.6	46	9.2	AV	Ν	GND
2.144000	34.40	11.7	46	11.6	AV	Ν	GND
5.190500	32.90	11.8	50	17.1	AV	Ν	GND
16.206500	41.90	11.9	50	8.1	AV	Ν	GND

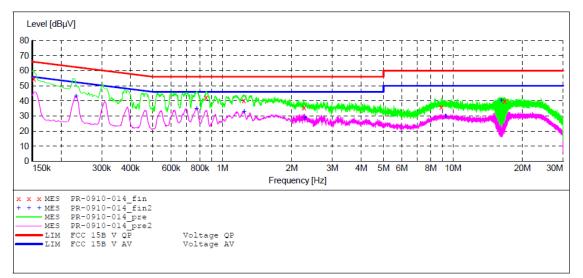


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	Memory Playing	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:		
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 16:05:20	

SCAN TABLE: "V 150K-30MHz fin"

Short Desci			_SUB_STD_VTE	RM2 1.70		
Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
150.0 kHz	30.0 MHz	4.5 kHz	~	1.0 s	9 kHz	LISN(ESH3-Z5)
			Average			



MEASUREMENT RESULT: "PR-0910-014_fin"

2016-9-10 16:07

Frequency MHz		Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.152000 0.850000 1.236000 2.261000 8.889500 16.755500	54.90 42.10 40.40 35.50 35.90 39.80	10.4 11.6 11.6 11.7 11.9 11.9	66 56 56 60 60	15.6 20.5	QP	L1 L1 L1 L1 L1 L1	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-014_fin2"

2016-9-10 16: Frequency MHz		Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.232000 0.774000 1.242000 2.274500 9.290000 16.206500	42.90 35.00 32.70 28.40 29.90 40.30	10.8 11.5 11.6 11.7 11.9 11.9	52 46 46 50 50	9.5 11.0 13.3 17.6 20.1 9.7	AV AV AV AV AV AV	L1 L1 L1 L1 L1 L1	GND GND GND GND GND GND

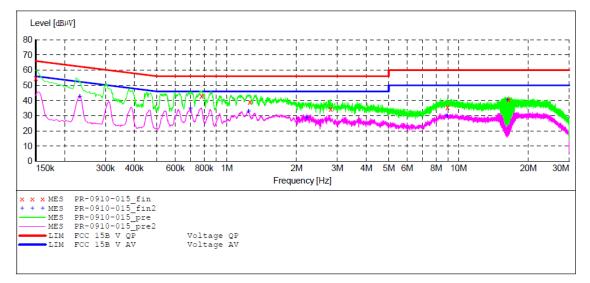


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	HDMI IN	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	L 240V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 16:07:54	

SCAN TABLE: "V 150K-30MHz fin"

Short Desci			_SUB_STD_VTER	RM2 1.70			
Start	-	1	Detector	Meas.		Transducer	
Frequency	Frequency	Width		Time	Bandw.		
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak Average	1.0 s	9 kHz	LISN(ESH3-Z5)	



MEASUREMENT RESULT: "PR-0910-015 fin"

2016-9-10 16:11

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000 0.778000 1.258000 2.805500 8.957000 16.436000	54.90 43.00 39.20 34.60 35.80 40.50	10.3 11.5 11.6 11.7 11.9 11.9	66 56 56 60 60	11.1 13.0 16.8 21.4 24.2 19.5	ΏР	L1 L1 L1 L1 L1 L1	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-015 fin2"

2016-9-10 16:11 Frequency Level Transd Limit Margin Detector Line PE MHz dBµV dB dBµV dB 10.8 42.80 0.232000 52 9.6 AV GND T.1 34.70 0.698000 11.5 46 11.3 AV L1GND 1.242000 32.80 11.6 46 13.2 AV L1GND 11.7 11.9 2.216000 28.50 46 17.5 AV GND L129.90 20.1 AV 9.8 AV 8.916500 50 L1GND 11.9 16.283000 40.20 50 L1GND

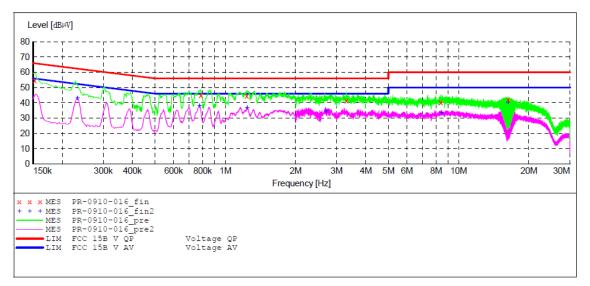


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	HDMI IN	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	N 240V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 16:13:34	

SCAN TABLE: "V 150K-30MHz fin"

DOULL THEFT						
Short Desc	ription:		_SUB_STD_VTE	RM2 1.70		
Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak	1.0 s	9 kHz	LISN(ESH3-Z5)
			Average			



MEASUREMENT RESULT: "PR-0910-016 fin"

2016-9-10 16:15

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.152000 0.784000 1.234000 3.305000 8.376500 16.287500	54.80 45.00 44.60 41.30 40.10 41.80	10.4 11.6 11.6 11.7 11.8 11.9	66 56 56 60 60	11.1 11.0 11.4 14.7 19.9 18.2	<u> </u> др	N N N N N	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-016 fin2"

2016-9-10 16:15

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.232000 0.776000 1.240000 2.697500 8.444000 16.287500	43.00 37.90 36.80 34.30 33.30 40.30	10.8 11.5 11.6 11.7 11.8 11.9	52 46 46 50 50	9.4 8.1 9.2 11.7 16.7 9.7	AV AV AV AV AV AV	N N N N N	GND GND GND GND GND GND

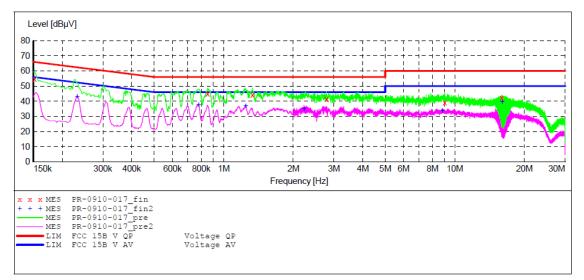


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	VGA IN	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	N 240V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 16:15:41	

SCAN TABLE: "V 150K-30MHz fin"

Short Desc			SUB_STD_VTE	RM2 1.70		
	Stop	1	Detector			Transducer
Frequency	Frequency	Width		Time	Bandw.	
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak Average	1.0 s	9 kHz	LISN (ESH3-Z5)



MEASUREMENT RESULT: "PR-0910-017 fin"

2016-9-10 16:17

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.152000 0.852000 1.330000 2.783000 9.047000 15.972500	54.70 45.00 44.20 41.50 39.20 42.40	10.4 11.6 11.6 11.7 11.9 11.9	66 56 56 60 60	11.2 11.0 11.8 14.5 20.8 17.6	QP QP QP QP QP QP QP	N N N N N	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-017 fin2"

2016-9-10 16:17 Level Transd Limit Margin Detector Line PE Frequency MHz dBµV dB dBµV dB 0.232000 42.90 10.8 52 9.5 AV Ν GND 0.778000 37.60 11.5 46 8.4 AV Ν GND 36.70
 11.6
 46

 11.7
 46

 11.8
 50

 11.9
 50
 1.244000 9.3 AV 11.3 AV N N GND 2.225000 34.70 GND 16.4 AV 10.7 AV 8.817500 33.60 Ν GND 16.053500 39.30 Ν GND

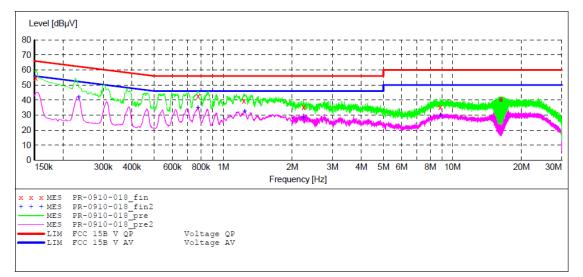


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	VGA IN	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	L 240V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 16:19:37	

SCAN TABLE: "V 150K-30MHz fin"

Short Description:		SUB STD VTERM2 1.7	0		
Start Stop	Step	Detector Meas.	IF	Transducer	
Frequency Frequency		Time	Bandw.		
150.0 kHz 30.0 MHz	4.5 kHz	QuasiPeak 1.0 s	9 kHz	LISN(ESH3-Z5)	
		Average			



MEASUREMENT RESULT: "PR-0910-018 fin"

2016-9-10 16:22

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	ΡE
0.152000 0.776000 1.230000 2.238500 8.835500 16.283000	54.80 42.70 39.70 35.10 35.40 40.60	10.4 11.5 11.6 11.7 11.8 11.9	66 56 56 60 60	11.1 13.3 16.3 20.9 24.6 19.4	~	L1 L1 L1 L1 L1 L1	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-018_fin2"

2016-9-10 16:22

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.234000 0.776000 1.240000 2.238500	41.80 34.90 32.50 28.40	10.8 11.5 11.6 11.7	52 46 46 46	10.5 11.1 13.5 17.6	AV AV	L1 L1 L1 L1	GND GND GND GND
8.880500 16.283000	29.80 39.90	11.8 11.9	50 50	20.2	AV AV	L1 L1	GND GND

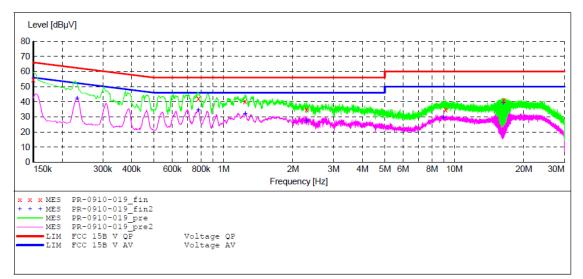


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	AV IN	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	L 240V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 16:24:01	

SCAN TABLE: "V 150K-30MHz fin"

DOUR THDE	100					
Short Desc	ription:		_SUB_STD_VTE	RM2 1.70		
Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak	1.0 s	9 kHz	LISN(ESH3-Z5)
			Average			



MEASUREMENT RESULT: "PR-0910-019_fin"

2016-9-10 16:28

010 2 10 10.	20						
Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
1 1				2			
MHz	dBµV	dB	dBµV	dB			
0.150000	54.60	10.3	66	11.4	OP	L1	GND
					~		OND
0.778000	42.40	11.5	56	13.6	QP	L1	GND
1.238000	40.10	11.6	56	15.9	OP	L1	GND
					~		
2.288000	34.80	11.7	56	21.2	QP	L1	GND
9.146000	34.90	11.9	60	25.1	OP	L1	GND
					~		
16.364000	41.10	11.9	60	18.9	QP	L1	GND

MEASUREMENT RESULT: "PR-0910-019_fin2"

					_			
2016-9-	-10 16:2	28						
Freq	quency	Level	Transd	Limit	Margin	Detector	Line	PE
	MHz	dBµV	dB	dBµV	dB			
0.2	232000	42.30	10.8	52	10.1	AV	L1	GND
0.7	778000	34.60	11.5	46	11.4	AV	L1	GND
1.2	242000	32.20	11.6	46	13.8	AV	L1	GND
2.2	288000	27.40	11.7	46	18.6	AV	L1	GND
8.9	970500	29.40	11.9	50	20.6	AV	L1	GND
16.2	283000	39.00	11.9	50	11.0	AV	L1	GND

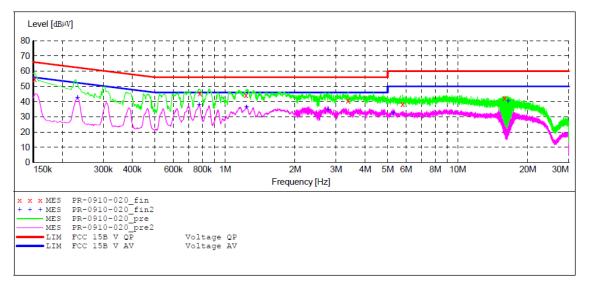


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	AV IN	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	N 240V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 16:31:14	

SCAN TABLE: "V 150K-30MHz fin"

Short Descr			SUB_STD_VTE	RM2 1.70		
Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak	1.0 s	9 kHz	LISN(ESH3-Z5)
			Average			



MEASUREMENT RESULT: "PR-0910-020_fin"

2016-9-10 16:32

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.152000 0.778000 1.230000 3.377000 5.798000 15.896000	54.90 45.50 44.20 40.70 38.50 42.30	10.4 11.5 11.6 11.7 11.8 11.9	66 56 56 60 60	11.0 10.5 11.8 15.3 21.5 17.7	QP QP QP QP QP QP	N N N N N	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-020_fin2"

2016-9-10 16:32

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.232000 0.774000 1.236000 2.769500 5.276000 16.440500	42.70 37.90 36.40 34.80 32.50 40.10	10.8 11.5 11.6 11.7 11.8 11.9	52 46 46 50 50	9.7 8.1 9.6 11.2 17.5 9.9	AV AV	N N N N N	GND GND GND GND GND GND

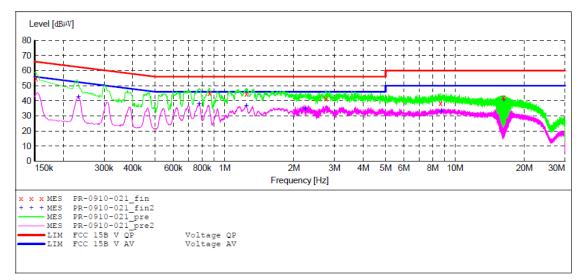


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	DP IN	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	N 240V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 16:33:22	

SCAN TABLE: "V 150K-30MHz fin"

	scription:	K-SUMHZ	SUB STD VTER	RM2 1.70			
	Stop	1	Detector			Transducer	
Frequenc	y Frequency	Width		Time	Bandw.		
150.0 kH	z 30.0 MHz	4.5 kHz	QuasiPeak Average	1.0 s	9 kHz	LISN(ESH3-Z5)	



MEASUREMENT RESULT: "PR-0910-021_fin"

2016-9-10 16:35

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.152000 0.860000 1.244000 2.756000 8.651000 16.206500	54.70 45.10 44.50 41.60 38.30 42.40	10.4 11.6 11.6 11.7 11.8 11.9	66 56 56 60 60	11.2 10.9 11.5 14.4 21.7 17.6	ΏР	N N N N N	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-021_fin2"

2016-9-10 16: Frequency MHz		Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.232000 0.776000 1.244000 2.234000 8.741000 16.283000	42.70 37.90 36.70 34.60 32.90 40.50	10.8 11.5 11.6 11.7 11.8 11.9	52 46 46 50 50	9.7 8.1 9.3 11.4 17.1 9.5	AV AV AV AV AV	N N N N N	GND GND GND GND GND GND

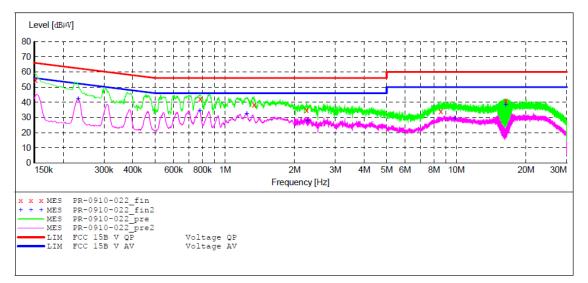


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	DP IN	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	L 240V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 16:35:32	

SCAN TABLE: "V 150K-30MHz fin"

Sound THEFT							
Short Desc	ription:		_SUB_STD_VTE	RM2 1.70			
Start	Stop	Step	Detector	Meas.	IF	Transducer	
Frequency	Frequency	Width		Time	Bandw.		
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak	1.0 s	9 kHz	LISN(ESH3-Z5)	
			Average				



MEASUREMENT RESULT: "PR-0910-022 fin"

2016-9-10 16:40

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.152000 0.782000 1.336000 2.252000 8.570000 16.364000	54.90 42.10 38.30 34.90 34.10 41.00	10.4 11.6 11.6 11.7 11.8 11.9	66 56 56 60 60	11.0 13.9 17.7 21.1 25.9 19.0	QP QP QP QP QP QP	L1 L1 L1 L1 L1 L1	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-022 fin2"

2016-9-10 16:40 Frequency Level Transd Limit Margin Detector Line PE MHz dBµV dB dBµV dB 0.232000 42.40 10.8 52 10.0 AV L1GND 34.50 11.5 0.778000 46 11.5 AV L1GND 32.40 11.6 27.60 11.7 29.30 11.9 1.242000 2.274500 46 13.6 AV 46 18.4 AV 50 20.7 AV GND L1L1GND 29.30 38.50 9.866000 L1GND 11.5 AV 16.364000 11.9 50 L1GND

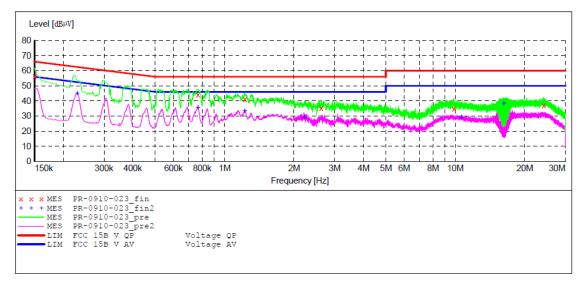


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	USB IN	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	L 240V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 17:20:53	

SCAN TABLE: "V 150K-30MHz fin"

Short Descr			SUB_STD_VTE	RM2 1.70		
Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak	1.0 s	9 kHz	LISN(ESH3-Z5)
			Average			



MEASUREMENT RESULT: "PR-0910-023 fin"

2016-9-10 17:22

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000 0.766000 1.224000 2.621000 9.866000 24.176000	56.20 44.20 41.00 35.10 34.70 37.10	10.3 11.5 11.6 11.7 11.9 12.0	66 56 56 60 60	9.8 11.8 15.0 20.9 25.3 22.9	QP QP QP QP QP QP QP	L1 L1 L1 L1 L1 L1	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-023_fin2"

2016-9-10 17:22

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.230000 0.766000 1.222000 2.207000 10.640000 16.215500	44.90 35.70 33.20 28.90 28.90 38.50	10.8 11.5 11.6 11.7 11.9 11.9	52 46 46 50 50	7.5 10.3 12.8 17.1 21.1 11.5	AV AV AV AV AV AV	L1 L1 L1 L1 L1 L1	GND GND GND GND GND GND

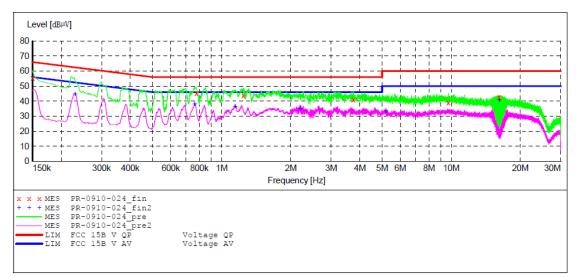


CONDUCTED EMISSION STANDARD FCC PART 15B

EUT:	Interactive Flat Panel	M/N:ST-700
Manufacturer:	Recordex USA	
Operating Condition:	USB IN	
Test Site:	2#Shielding Room	
Operator:	DING	
Test Specification:	N 240V/60Hz	
Comment:	Report NO.:ATE20161916	
Start of Test:	2016-9-10 / 17:23:04	

SCAN TABLE: "V 150K-30MHz fin"

Short Descr			SUB_STD_VTE	RM2 1.70		
Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak	1.0 s	9 kHz	LISN (ESH3-Z5)
			Average			



MEASUREMENT RESULT: "PR-0910-024_fin"

2016-9-10 17: Frequency MHz	24 Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000 0.776000 1.242000 3.746000 9.713000 16.139000	55.60 45.20 43.80 40.90 39.00 42.80	10.3 11.5 11.6 11.7 11.9 11.9	66 56 56 60 60	10.4 10.8 12.2 15.1 21.0 17.2	QP QP QP QP QP QP QP	N N N N N	GND GND GND GND GND GND

MEASUREMENT RESULT: "PR-0910-024_fin2"

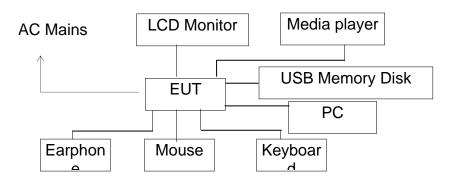
2016-9-10 17:2 Frequency	24 Level	Transd	Limit	Margin	Detector	Line	PE
MHz	dBµV	dB	dBµV	dB	Decessor	Line	11
0.230000	44.70	10.8	52	7.7	AV	Ν	GND
0.764000	37.80	11.5	46	8.2	AV	Ν	GND
1.144000	36.40	11.6	46	9.6	AV	Ν	GND
2.193500	34.70	11.7	46	11.3	AV	Ν	GND
5.195000	33.10	11.8	50	16.9	AV	Ν	GND
16.220000	40.70	11.9	50	9.3	AV	Ν	GND



5. RADIATED EMISSION MEASUREMENT

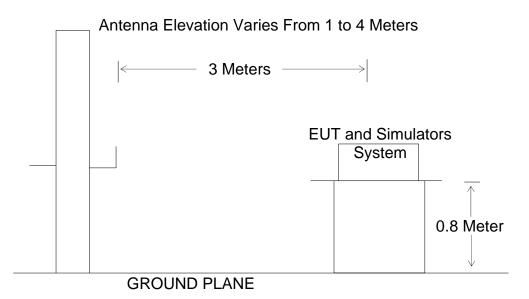
5.1.Block Diagram of Test

5.1.1.Block diagram of connection between the EUT and simulators



(EUT: Interactive Flat Panel)

5.1.2.Block diagram of test setup (In chamber)



5.2.Test mode description

Test mode 1: USB IN Test mode 2: AV IN Test mode 3: VGA IN Test mode 4: DP IN Test mode 5: HDMI IN Test mode 6: Memory Playing



5.3.Radiated Emission Limit (Class B)

All emanations from a class B device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified below:

Frequency	Distance	Field Stren	igths Limit
MHz	Meters	μV/m	dB(μV/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

Remark:

(1) Emission level dB(μ V) = 20 log Emission level μ V/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.Manufacturer

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

5.4.1.Interactive Flat Panel (EUT)

Model Number: ST-700 Manufacturer: Recordex USA, Inc.

5.5. Operating Condition of EUT

5.5.1.Setup the EUT and simulator as shown as Section 5.1

5.5.2.Turn on the power of all equipment.

5.5.3.Let the EUT work in test mode and measure it.



5.6.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2014 on radiated emission measurement.

The bandwidth of the EMI test receiver (R&S ESCS30) is set at 120kHz.

The frequency range from 30MHz to 24000MHz is checked. Note:The EUT highest operating frequency provided by Manufacturer is 1.2GHz and include 2.4GHz and 5GHz wifi, the radiated emission measurement shall be made up to 40 GHz.

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measure- ment range (MHz)
Below 1.705 1.705–108 108–500 500–1000 Above 1000	 30. 1000. 2000. 5000. 5th harmonic of the highest frequency or 40 GHz, whichever is lower.



5.7.Radiated Emission Noise Measurement Result

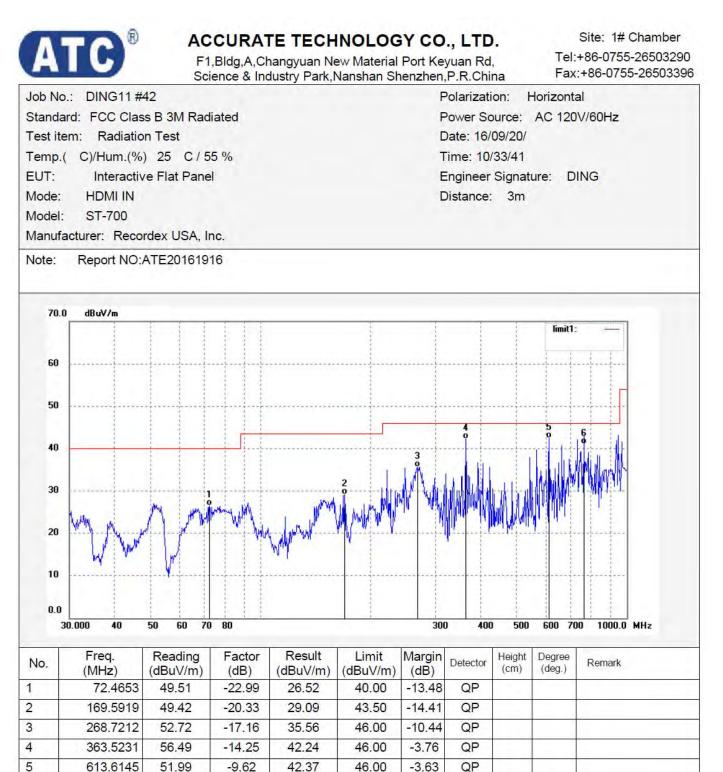
PASS.

The frequency range from 30MHz to 40000MHz is investigated.

Emissions attenuated more than 20 dB below the permissible value are not reported.

The spectral diagrams are attached as below.





6

762.9628

47.59

-6.51

41.08

46.00

-4.92

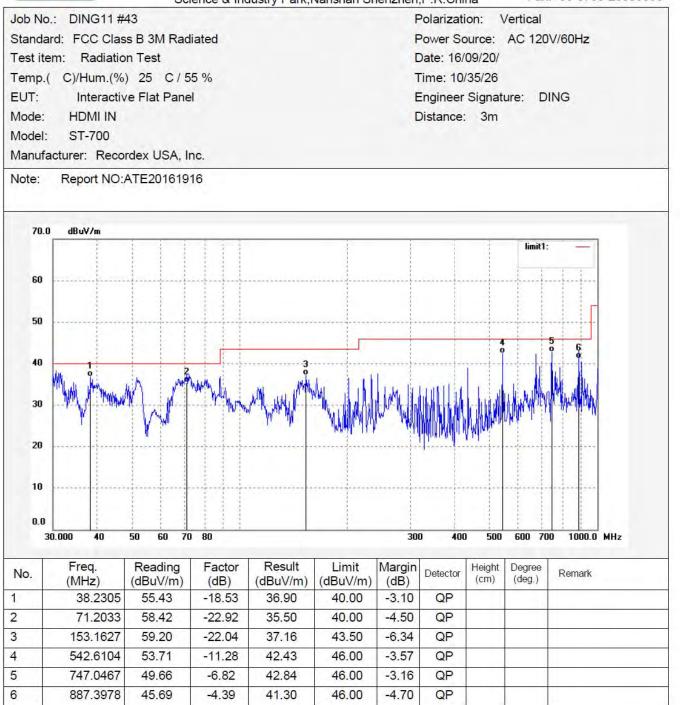
QP



Report No.: ATE20161916 Page 41 of 99

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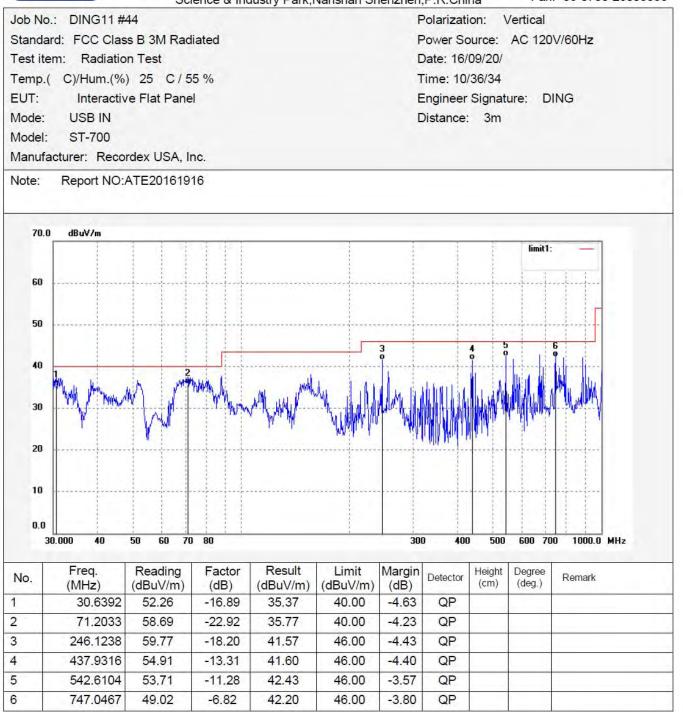
F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396



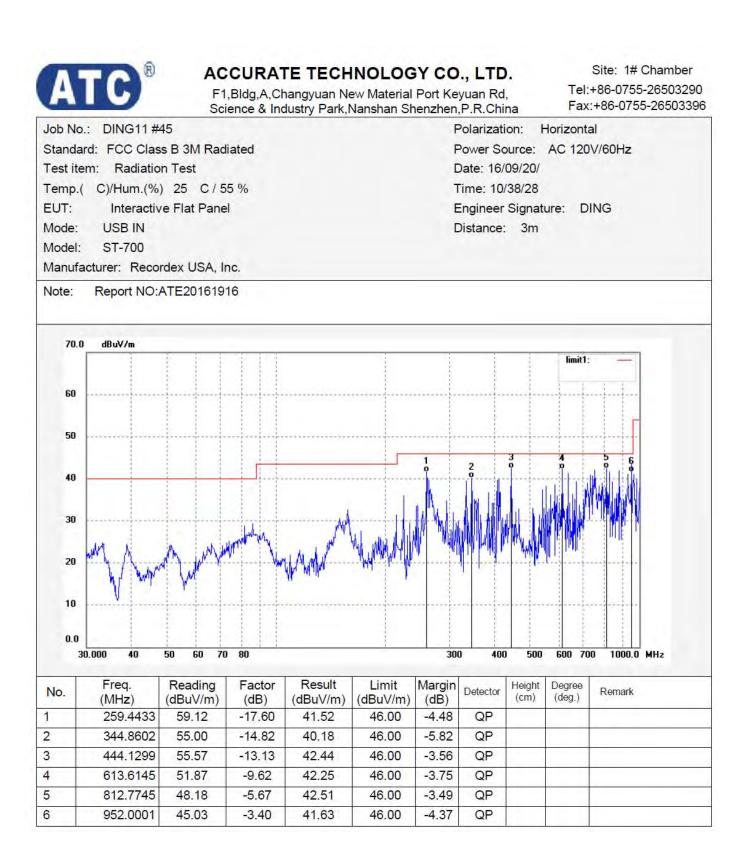


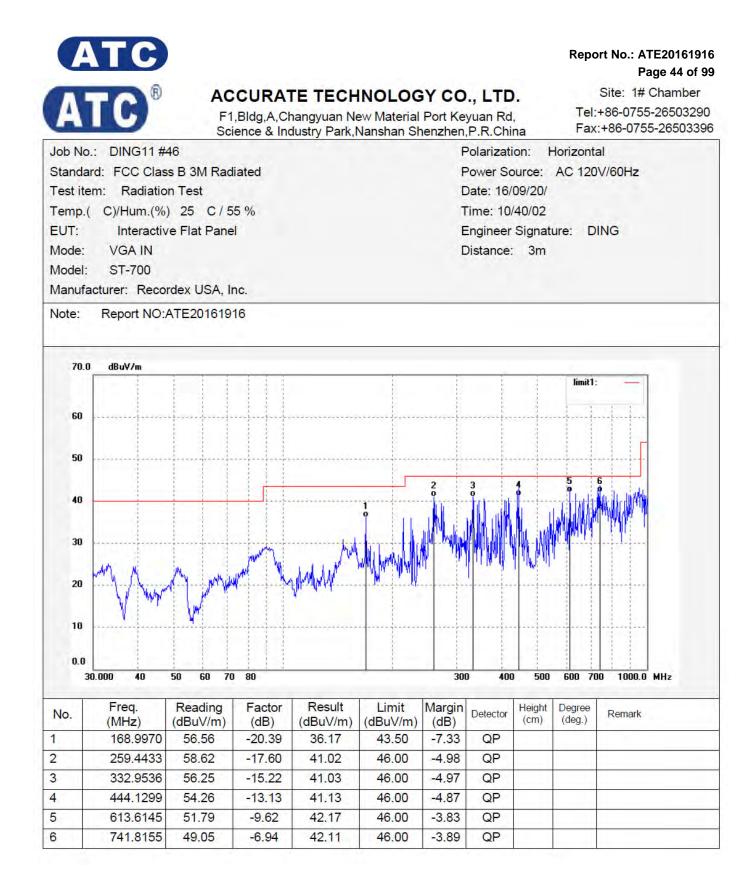
ACCURATE TECHNOLOGY CO., LTD.

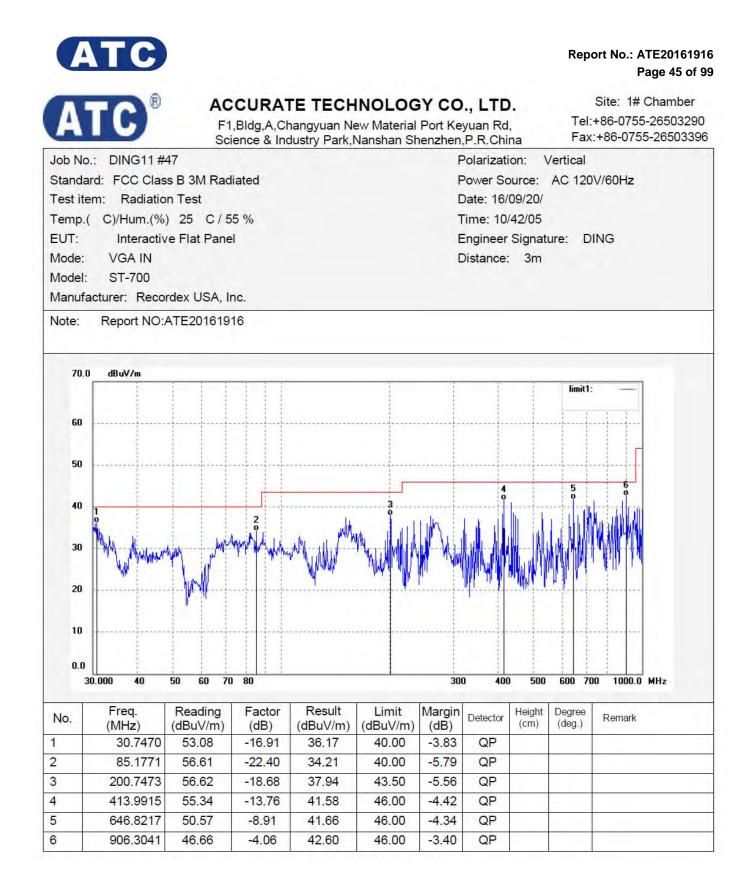
F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

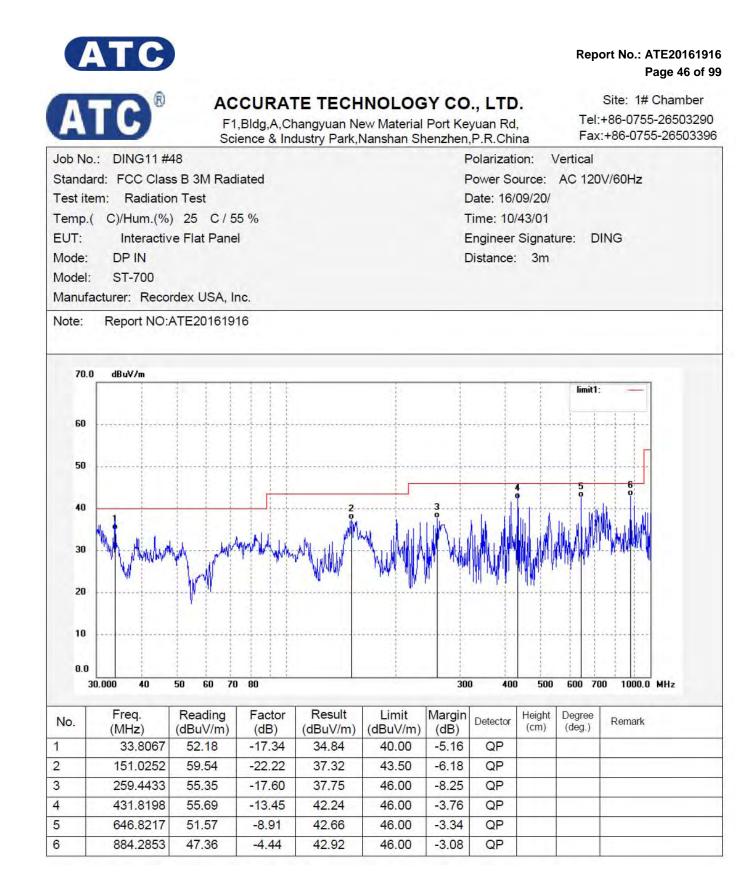


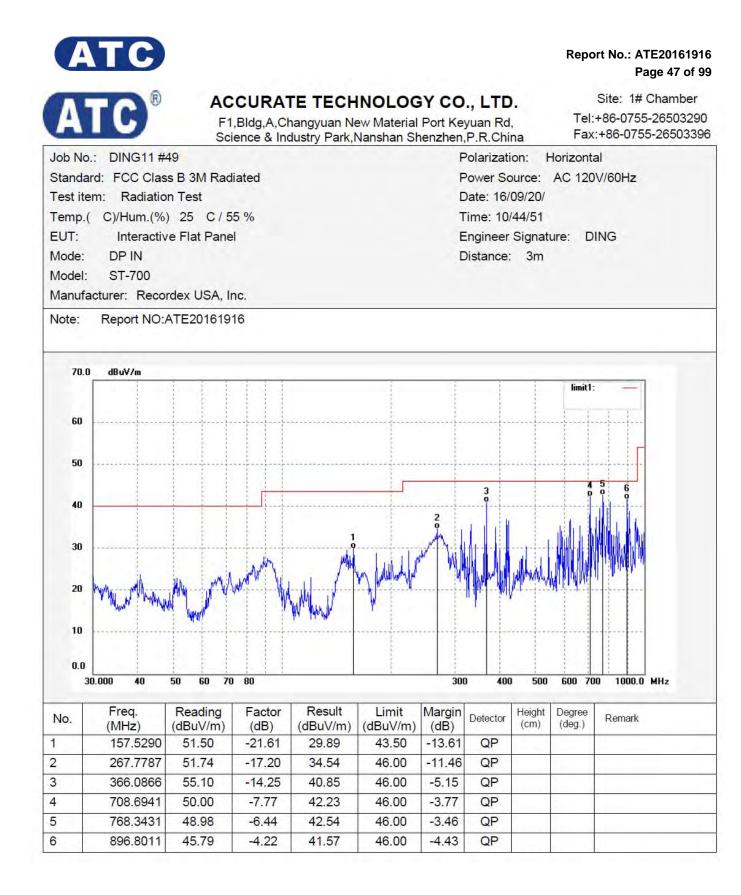














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F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Page 48 of 99 Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Report No.: ATE20161916

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Node:	AV IN					Ľ	Distance:	: 3m		
Model:	ST-700									
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No.	Freq.	Reading	Factor	Result	Limit	Margin	Detector	Height	Degree	Remark
	(MHz) 246.9901	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	1	(cm)	(deg.)	
		58.36	-18.19	40.17	46.00	-5.83	QP			
	267.7787	58.74	-17.20	41.54	46.00	-4.46	QP			
	355.9397 444.1299	56.81	-14.44	42.37	46.00	-3.63	QP			
	/// 1700	54.79	-13.13	41.66	46.00	-4.34	QP			
				10.00	10.00	0.77	0.0		-	
6 5 6	708.6941	50.00 48.98	-7.77 -6.44	42.23 42.54	46.00 46.00	-3.77 -3.46	QP QP			



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Report No.: ATE20161916 Page 49 of 99

Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

	b.: DING11 #	51				F	Polarizati	ion: \	/ertical		
Standa	ard: FCC Clas	s B 3M Rad	iated			F	ower So	ource:	AC 120)V/60Hz	
Test item: Radiation Test Temp.(C)/Hum.(%) 25 C / 55 % EUT: Interactive Flat Panel						Date: 16/09/20/ Time: 10/47/13 Engineer Signature: DING					
Aode:							Distance:				
Aodel:											
	acturer: Reco	rdex USA. In	nc.								
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30 20 10 0.0	30.000 40	50 60 70	2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M WARD		30	0 400) 500	600 70	0 1000.0 MHz	
30 20 10 0.0	30.000 40		-	Muddlip		1			600 70	0 1000.0 MHz	
30 20 10 3	30.000 40 Freq.	Reading	Factor	Result		Margin		Height	Degree	0 1000.0 MHz Remark	
30 20 10 0.0 3	50.000 40 Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	(dBuV/m)	(dBuV/m)	Margin (dB)	Detector				
30 20 10 3 No.	30.000 40 Freq. (MHz) 31.0728	Reading (dBuV/m) 53.89	Factor (dB) -16.95	(dBuV/m) 36.94	(dBuV/m) 40.00	Margin (dB) -3.06	Detector QP	Height	Degree		
30 20 10 0.0 3	30.000 40 Freq. (MHz) 31.0728 86.9918	Reading (dBuV/m) 53.89 58.97	Factor (dB) -16.95 -22.24	(dBuV/m) 36.94 36.73	(dBuV/m) 40.00 40.00	Margin (dB) -3.06 -3.27	Detector QP QP	Height	Degree		
30 20 10 0.0 3	30.000 40 Freq. (MHz) 31.0728 86.9918 481.5112	Reading (dBuV/m) 53.89 58.97 52.76	Factor (dB) -16.95 -22.24 -12.45	(dBuV/m) 36.94 36.73 40.31	(dBuV/m) 40.00 40.00 46.00	Margin (dB) -3.06 -3.27 -5.69	Detector QP QP QP	Height	Degree		
30 20 10 0.0	30.000 40 Freq. (MHz) 31.0728 86.9918	Reading (dBuV/m) 53.89 58.97	Factor (dB) -16.95 -22.24	(dBuV/m) 36.94 36.73	(dBuV/m) 40.00 40.00	Margin (dB) -3.06 -3.27	Detector QP QP	Height	Degree		

