

FCC TEST REPORT
for
Xiamen Prima Technology Inc.

LED touch display

Model No.: LE-55ME0E, TS55M10H, TS55M10

FCC ID: 2ADID-LE-55ME0E

Prepared for : Xiamen Prima Technology Inc.
Address : No.178, Xinfeng Road, Xiamen, Fujian, P.R. China

Prepared by : Accurate Technology Co., Ltd.
Address : F1, Bldg. A&D, Changyuan New Material Port, Keyuan Rd.,
Science & Industry Park, Nanshan District Shenzhen
518057, P.R. China

Tel: +86-755-26503290
Fax: +86-755-26503396

Report No. : ATE20162484
Date of Test : Nov. 23--Dec. 09, 2016
Date of Report : Dec. 10, 2016

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Test Report

Applicant : Xiamen Prima Technology Inc.
Manufacturer : Xiamen Prima Technology Inc.
EUT Description : LED touch display
Model No. : LE-55ME0E, TS55M10H, TS55M10
Trade Name : PRIMA, HATCH, TATUNG

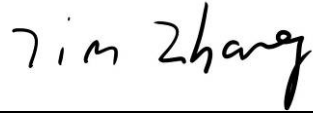
Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart B Class B:2016
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 : Nov. 23--Dec. 09, 2016
Date of Report : Dec 10, 2016

Prepared by : 
(Tim.zhang, 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

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Product : LED touch display

Model No. : LE-55ME0E, TS55M10H, TS55M10

Test Voltage : POWER SUPPLY: ~ 120V 60Hz

Trade Name : PRIMA

Remark(s) : The EUT highest operating frequency provided by Manufacturer is 144MHz, the radiated emission measurement shall be made up to 2 GHz.

Applicant : Xiamen Prima Technology Inc.
Address : No.178, Xinfeng Road, Xiamen, Fujian, P.R. China

Manufacturer : Xiamen Prima Technology Inc.
Address : Wanlida Industry Zone Building C, Nanjing Fujian, P.R. China.

Date of sample receiver : Nov. 23, 2016

Date of Test : Nov. 23--Dec. 09, 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

Earphone : Manufacturer: APPLE
M/N: iPhone (Matching earphone)
S/N: 7M6369W3VQ5

HDMI Line : 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

TOUCH Line : DP line length of 1.2 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 = 3.08dB, k=2
(9kHz-30MHz)

Radiated emission expanded uncertainty = 4.42dB, k=2
(30MHz-1000MHz)

Radiated emission expanded uncertainty = 4.06dB, k=2
(Above 1GHz)

3. MEASURING DEVICE AND TEST EQUIPMENT

3.1. For Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan.09, 2016	1 Year
2.	Spectrum Analyzer	Rohde&Schwarz	FSV40	101495	Jan.09, 2016	1 Year
3.	Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan.09, 2016	1 Year
4.	Test Receiver	Rohde& Schwarz	ESPI	100396/003	Jan.09, 2016	1 Year
5.	Test Receiver	Rohde& Schwarz	ESPI	101526/003	Jan.09, 2016	1 Year
6.	Test Receiver	Rohde& Schwarz	ESR	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.	Log.-Per.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	N-3.5m	No.9	Jan.09, 2016	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

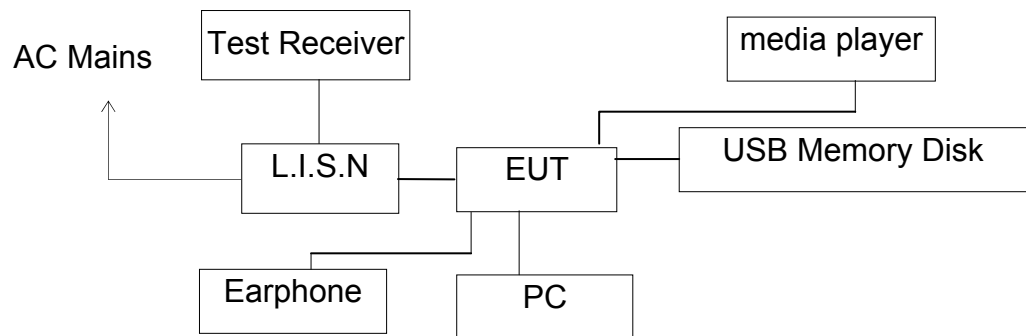
3.2.The Equipment Used to Measure Conducted Disturbance (L.I.S.N)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCS30	100307	Jan.09, 2016	1 Year
2.	Test Receiver	Rohde & Schwarz	ESPI3	100396/003	Jan.09, 2016	1 Year
3.	Test Receiver	Rohde & Schwarz	ESPI3	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	ESH3-Z5	100305	Jan.09, 2016	1 Year
6.	L.I.S.N.	Rohde & Schwarz	ESH3-Z5	100310	Jan.09, 2016	1 Year
7.	L.I.S.N.	Rohde & Schwarz	ESH3-Z6	100132	Jan.09, 2016	1 Year
8.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100305	Jan.09, 2016	1 Year
9.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100312	Jan.09, 2016	1 Year
10.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	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: LED touch display)

4.2. Test mode description

- Test mode 1: AV IN
- Test mode 2: VGA IN
- Test mode 3: COMPONENT IN
- Test mode 4: HDMI IN
- Test mode 5: USB PLAYING

Note: EUT have two USB interfaces, the USB TOUCH port is used to output the touch for external devices connected to PC, Another USB interface is used for system upgrades or service.

There is a detailed description of the interface On the fifth page of the user manual.

4.3. Power Line Conducted Emission Measurement Limits

Frequency (MHz)	Limit dB(μV)	
	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. 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.

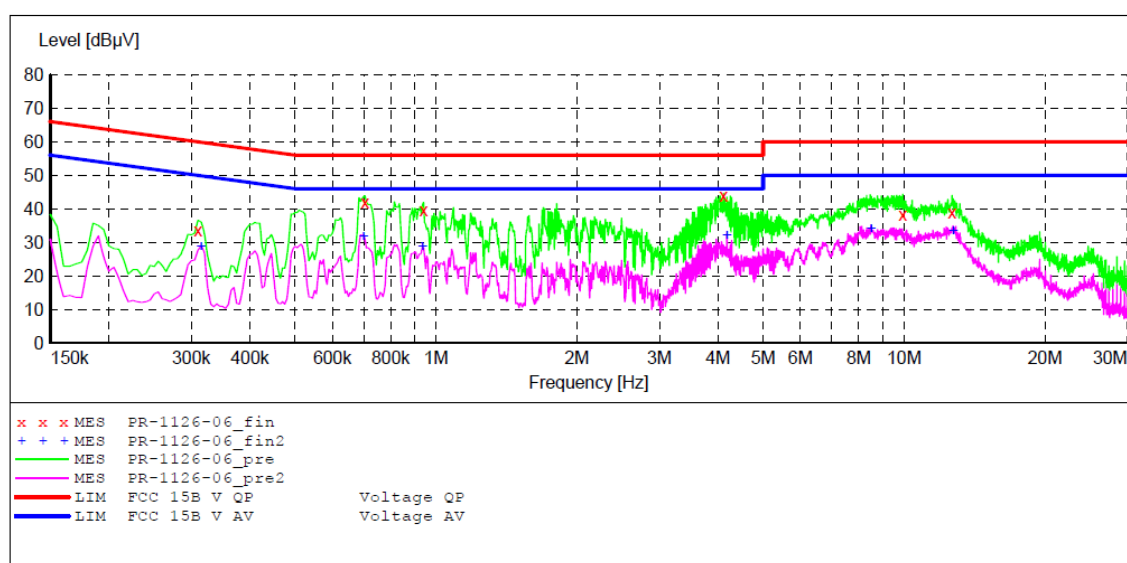
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: LED touch display M/N:LE-55MEM0E
 Manufacturer: PRIMA
 Operating Condition: AV IN
 Test Site: 2#Shielding Room
 Operator: DING
 Test Specification: L 120V/60Hz
 Comment: Report NO.:ATE20162484
 Start of Test: 2016-11-26 / 10:34:51

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

Short Description: SUB STD VTERM2 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 NSLK8126 2008
 Average



MEASUREMENT RESULT: "PR-1126-06_fin"

2016-11-26 10:35

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.310000	33.60	10.9	60	26.4	QP	L1	GND
0.705000	41.80	11.1	56	14.2	QP	L1	GND
0.940000	39.70	11.1	56	16.3	QP	L1	GND
4.110000	44.00	11.4	56	12.0	QP	L1	GND
9.930000	38.40	11.6	60	21.6	QP	L1	GND
12.650000	38.90	11.6	60	21.1	QP	L1	GND

MEASUREMENT RESULT: "PR-1126-06_fin2"

2016-11-26 10:35

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.315000	29.00	10.9	50	20.8	AV	L1	GND
0.700000	32.00	11.1	46	14.0	AV	L1	GND
0.935000	28.80	11.1	46	17.2	AV	L1	GND
4.180000	32.20	11.4	46	13.8	AV	L1	GND
8.500000	34.30	11.5	50	15.7	AV	L1	GND
12.725000	33.60	11.6	50	16.4	AV	L1	GND

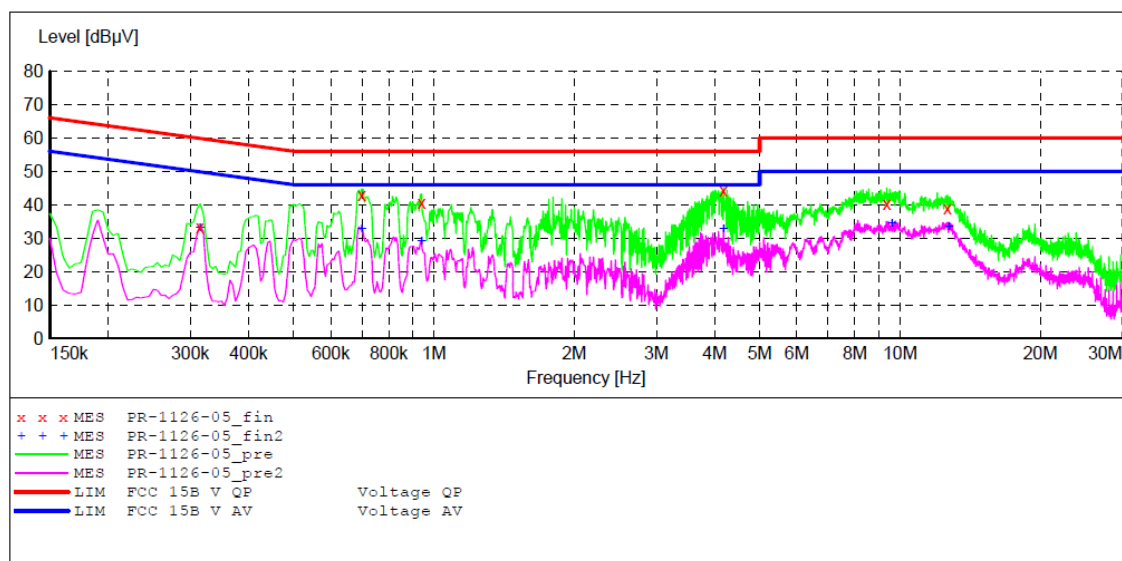
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: LED touch display M/N:LE-55MEM0E
 Manufacturer: PRIMA
 Operating Condition: AV IN
 Test Site: 2#Shielding Room
 Operator: DING
 Test Specification: N 120V/60Hz
 Comment: Report NO.:ATE20162484
 Start of Test: 2016-11-26 / 10:23:30

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

Short Description: SUB STD VTERM2 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 NSLK8126 2008
 Average



MEASUREMENT RESULT: "PR-1126-05_fin"

2016-11-26 10:31

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.315000	33.10	10.9	60	26.7	QP	N	GND
0.700000	42.90	11.1	56	13.1	QP	N	GND
0.940000	40.50	11.1	56	15.5	QP	N	GND
4.180000	44.20	11.4	56	11.8	QP	N	GND
9.370000	40.30	11.6	60	19.7	QP	N	GND
12.625000	39.10	11.6	60	20.9	QP	N	GND

MEASUREMENT RESULT: "PR-1126-05_fin2"

2016-11-26 10:31

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.315000	33.40	10.9	50	16.4	AV	N	GND
0.700000	33.00	11.1	46	13.0	AV	N	GND
0.940000	29.40	11.1	46	16.6	AV	N	GND
4.180000	33.00	11.4	46	13.0	AV	N	GND
9.610000	34.60	11.6	50	15.4	AV	N	GND
12.725000	33.60	11.6	50	16.4	AV	N	GND

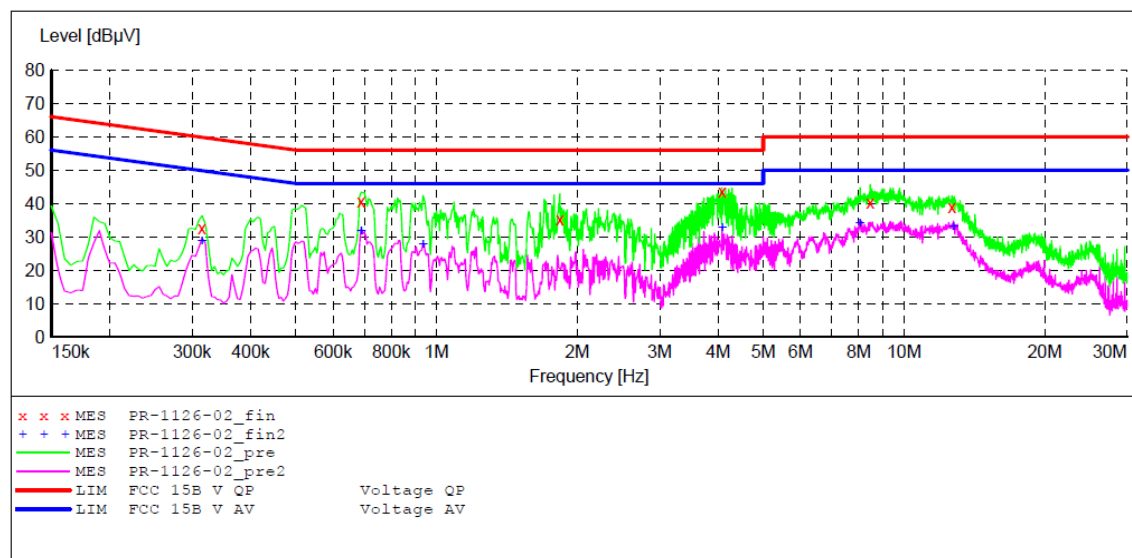
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: LED touch display M/N:LE-55MEM0E
 Manufacturer: PRIMA
 Operating Condition: VGA IN
 Test Site: 2#Shielding Room
 Operator: DING
 Test Specification: L 120V/60Hz
 Comment: Report NO.:ATE20162484
 Start of Test: 2016-11-26 / 10:18:13

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

Short Description: SUB STD VTERM2 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 NSLK8126 2008
 Average



MEASUREMENT RESULT: "PR-1126-02_fin"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.315000	32.50	10.9	60	27.3	QP	L1	GND
0.690000	40.70	11.1	56	15.3	QP	L1	GND
1.835000	35.30	11.2	56	20.7	QP	L1	GND
4.080000	43.50	11.4	56	12.5	QP	L1	GND
8.460000	40.20	11.5	60	19.8	QP	L1	GND
12.650000	38.80	11.6	60	21.2	QP	L1	GND

MEASUREMENT RESULT: "PR-1126-02_fin2"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.315000	29.00	10.9	50	20.8	AV	L1	GND
0.690000	32.00	11.1	46	14.0	AV	L1	GND
0.935000	28.10	11.1	46	17.9	AV	L1	GND
4.080000	33.00	11.4	46	13.0	AV	L1	GND
8.050000	34.40	11.5	50	15.6	AV	L1	GND
12.750000	33.10	11.6	50	16.9	AV	L1	GND

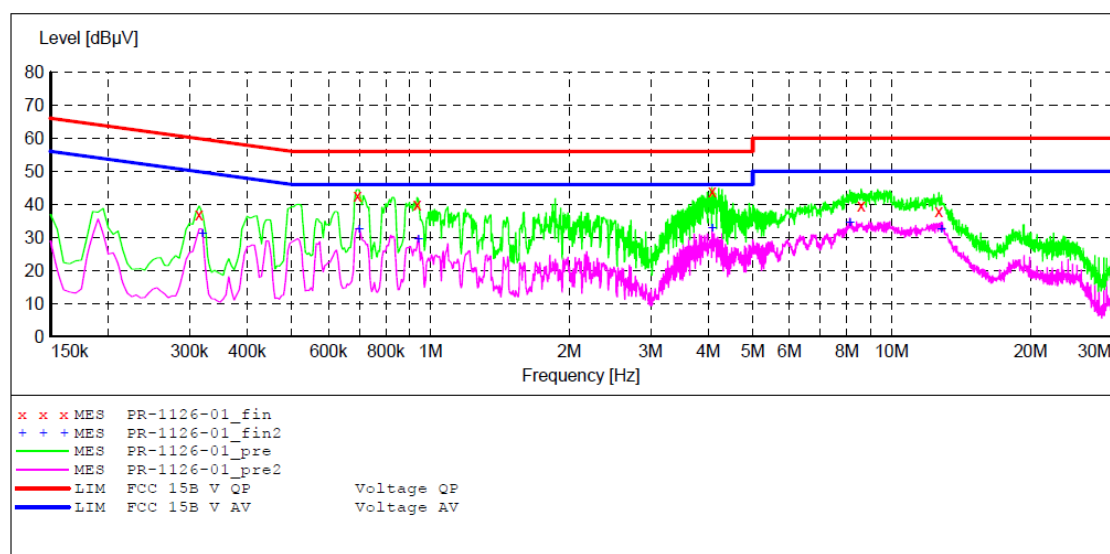
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: LED touch display M/N:LE-55MEM0E
 Manufacturer: PRIMA
 Operating Condition: VGA IN
 Test Site: 2#Shielding Room
 Operator: DING
 Test Specification: N 120V/60Hz
 Comment: Report NO.:ATE20162484
 Start of Test: 2016-11-26 / 10:14:37

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

Short Description: SUB STD VTERM2 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 NSLK8126 2008
 Average



MEASUREMENT RESULT: "PR-1126-01_fin"

2016-11-26 10:15

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.315000	36.90	10.9	60	22.9	QP	N	GND
0.695000	42.60	11.1	56	13.4	QP	N	GND
0.935000	39.80	11.1	56	16.2	QP	N	GND
4.080000	44.00	11.4	56	12.0	QP	N	GND
8.590000	39.50	11.5	60	20.5	QP	N	GND
12.650000	38.10	11.6	60	21.9	QP	N	GND

MEASUREMENT RESULT: "PR-1126-01_fin2"

2016-11-26 10:15

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.320000	31.20	10.9	50	18.5	AV	N	GND
0.700000	32.60	11.1	46	13.4	AV	N	GND
0.940000	29.50	11.1	46	16.5	AV	N	GND
4.080000	32.80	11.4	46	13.2	AV	N	GND
8.120000	34.60	11.5	50	15.4	AV	N	GND
12.825000	32.50	11.6	50	17.5	AV	N	GND

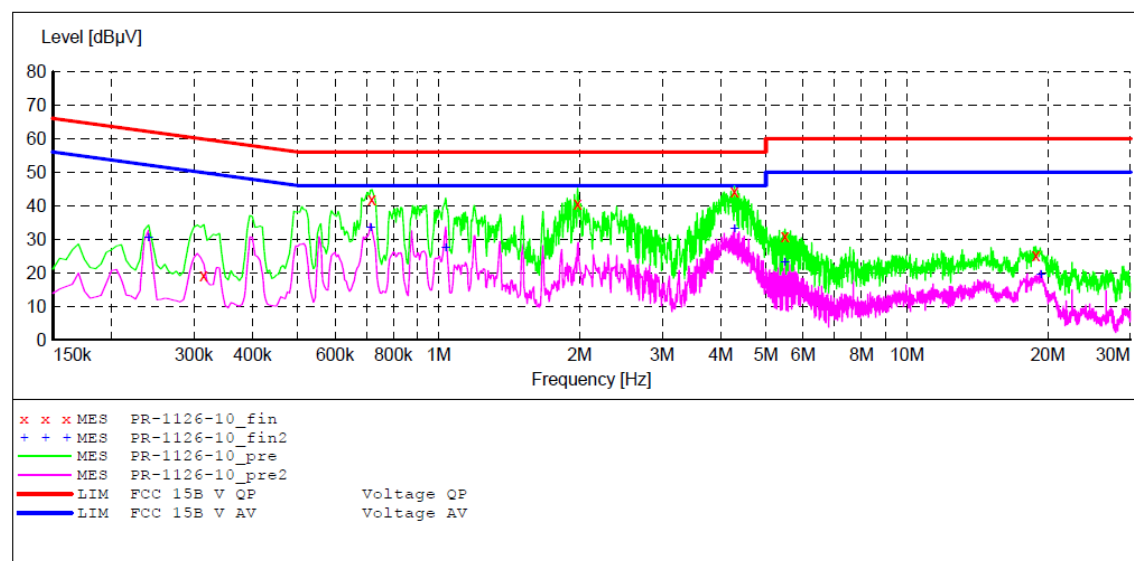
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: LED touch display M/N:LE-55MEM0E
 Manufacturer: PRIMA
 Operating Condition: COMPONENT IN
 Test Site: 2#Shielding Room
 Operator: DING
 Test Specification: L 120V/60Hz
 Comment: Report NO.:ATE20162484
 Start of Test: 2016-11-26 / 10:44:05

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

Short Description: SUB STD VTERM2 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 NSLK8126 2008
 Average



MEASUREMENT RESULT: "PR-1126-10_fin"

2016-11-26 10:45

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.315000	19.40	10.9	60	40.4	QP	L1	GND
0.720000	41.90	11.1	56	14.1	QP	L1	GND
1.980000	40.70	11.3	56	15.3	QP	L1	GND
4.280000	44.30	11.4	56	11.7	QP	L1	GND
5.490000	31.00	11.5	60	29.0	QP	L1	GND
18.850000	25.10	11.7	60	34.9	QP	L1	GND

MEASUREMENT RESULT: "PR-1126-10_fin2"

2016-11-26 10:45

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.240000	30.50	10.9	52	21.6	AV	L1	GND
0.715000	33.50	11.1	46	12.5	AV	L1	GND
1.035000	27.50	11.1	46	18.5	AV	L1	GND
4.280000	33.10	11.4	46	12.9	AV	L1	GND
5.490000	23.40	11.5	50	26.6	AV	L1	GND
19.325000	19.60	11.7	50	30.4	AV	L1	GND

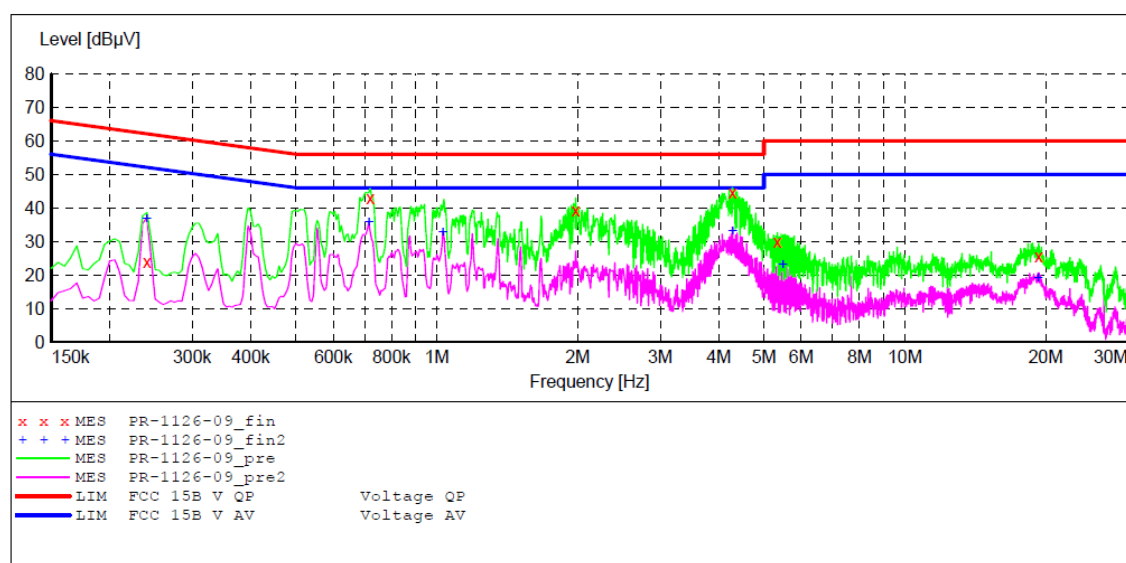
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: LED touch display M/N:LE-55MEM0E
 Manufacturer: PRIMA
 Operating Condition: COMPONENT IN
 Test Site: 2#Shielding Room
 Operator: DING
 Test Specification: N 120V/60Hz
 Comment: Report NO.:ATE20162484
 Start of Test: 2016-11-26 / 10:42:23

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

Short Description: SUB STD VTERM2 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 NSLK8126 2008
 Average



MEASUREMENT RESULT: "PR-1126-09_fin"

2016-11-26 10:43

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.240000	23.80	10.9	62	38.3	QP	N	GND
0.720000	43.00	11.1	56	13.0	QP	N	GND
1.980000	39.30	11.3	56	16.7	QP	N	GND
4.280000	44.70	11.4	56	11.3	QP	N	GND
5.340000	30.00	11.5	60	30.0	QP	N	GND
19.325000	25.50	11.7	60	34.5	QP	N	GND

MEASUREMENT RESULT: "PR-1126-09_fin2"

2016-11-26 10:43

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.240000	37.10	10.9	52	15.0	AV	N	GND
0.715000	36.00	11.1	46	10.0	AV	N	GND
1.030000	32.80	11.1	46	13.2	AV	N	GND
4.280000	33.30	11.4	46	12.7	AV	N	GND
5.490000	23.30	11.5	50	26.7	AV	N	GND
19.250000	19.40	11.7	50	30.6	AV	N	GND

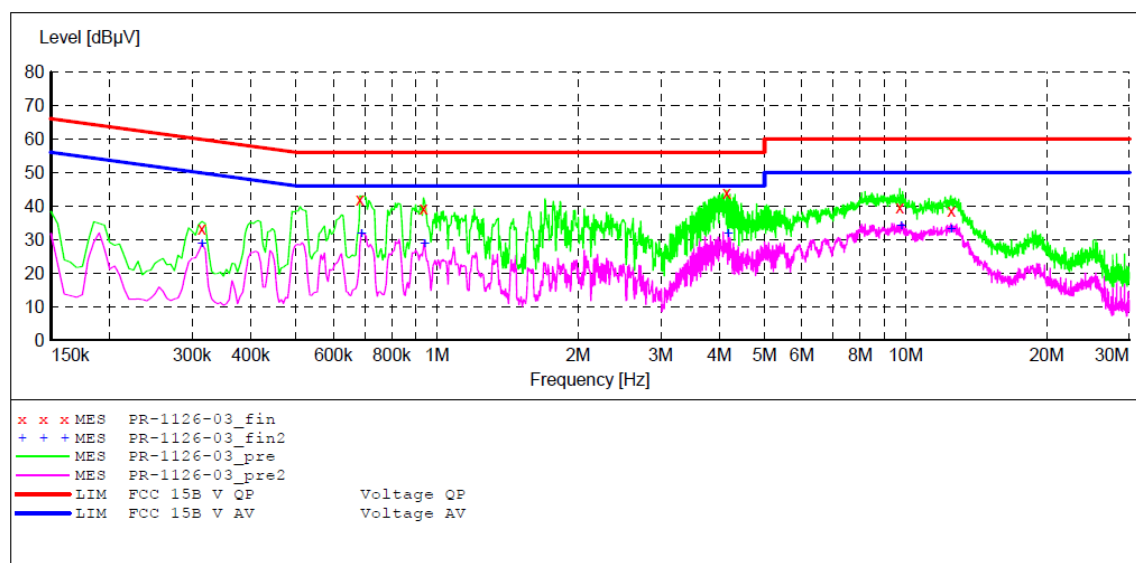
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: LED touch display M/N:LE-55MEM0E
 Manufacturer: PRIMA
 Operating Condition: HDMI IN
 Test Site: 2#Shielding Room
 Operator: DING
 Test Specification: L 120V/60Hz
 Comment: Report NO.:ATE20162484
 Start of Test: 2016-11-26 / 10:20:23

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

Short Description: SUB STD VTERM2 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 NSLK8126 2008
 Average



MEASUREMENT RESULT: "PR-1126-03_fin"

2016-11-26 10:21

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.315000	33.10	10.9	60	26.7	QP	L1	GND
0.685000	42.00	11.1	56	14.0	QP	L1	GND
0.935000	39.20	11.1	56	16.8	QP	L1	GND
4.150000	43.90	11.4	56	12.1	QP	L1	GND
9.710000	39.70	11.6	60	20.3	QP	L1	GND
12.500000	38.70	11.6	60	21.3	QP	L1	GND

MEASUREMENT RESULT: "PR-1126-03_fin2"

2016-11-26 10:21

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.315000	29.00	10.9	50	20.8	AV	L1	GND
0.690000	31.90	11.1	46	14.1	AV	L1	GND
0.940000	28.90	11.1	46	17.1	AV	L1	GND
4.180000	31.80	11.4	46	14.2	AV	L1	GND
9.780000	34.20	11.6	50	15.8	AV	L1	GND
12.500000	33.30	11.6	50	16.7	AV	L1	GND

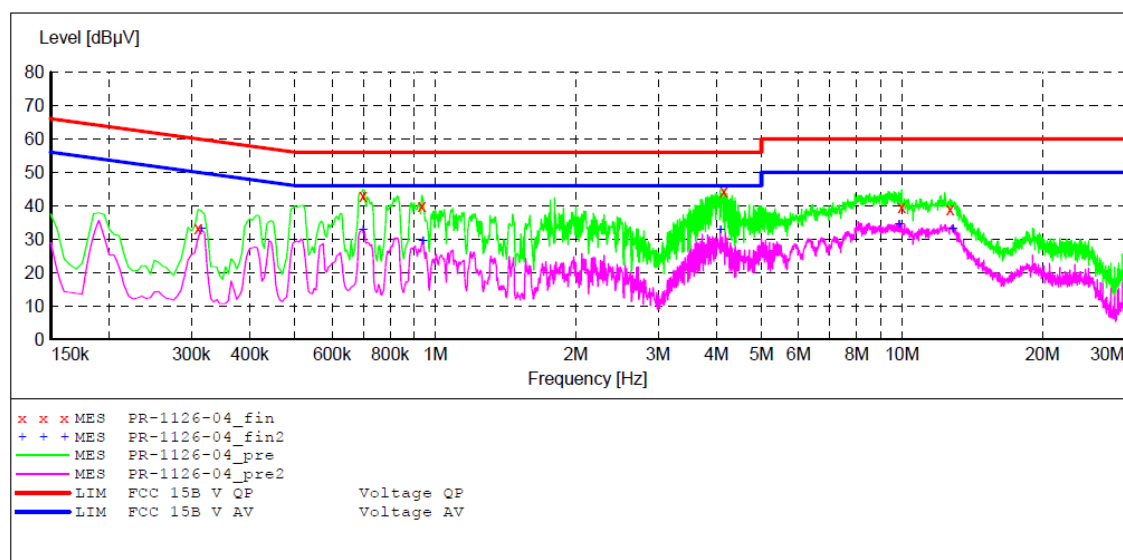
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: LED touch display M/N:LE-55MEM0E
 Manufacturer: PRIMA
 Operating Condition: HDMI IN
 Test Site: 2#Shielding Room
 Operator: DING
 Test Specification: N 120V/60Hz
 Comment: Report NO.:ATE20162484
 Start of Test: 2016-11-26 / 10:21:56

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

Short Description: SUB STD VTERM2 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 NSLK8126 2008
 Average



MEASUREMENT RESULT: "PR-1126-04_fin"

2016-11-26 10:23

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.310000	33.30	10.9	60	26.7	QP	N	GND
0.700000	43.00	11.1	56	13.0	QP	N	GND
0.935000	39.90	11.1	56	16.1	QP	N	GND
4.150000	44.20	11.4	56	11.8	QP	N	GND
9.980000	39.50	11.6	60	20.5	QP	N	GND
12.675000	38.80	11.6	60	21.2	QP	N	GND

MEASUREMENT RESULT: "PR-1126-04_fin2"

2016-11-26 10:23

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.315000	33.30	10.9	50	16.5	AV	N	GND
0.700000	32.80	11.1	46	13.2	AV	N	GND
0.940000	29.50	11.1	46	16.5	AV	N	GND
4.080000	32.90	11.4	46	13.1	AV	N	GND
9.850000	34.70	11.6	50	15.3	AV	N	GND
12.850000	33.10	11.6	50	16.9	AV	N	GND

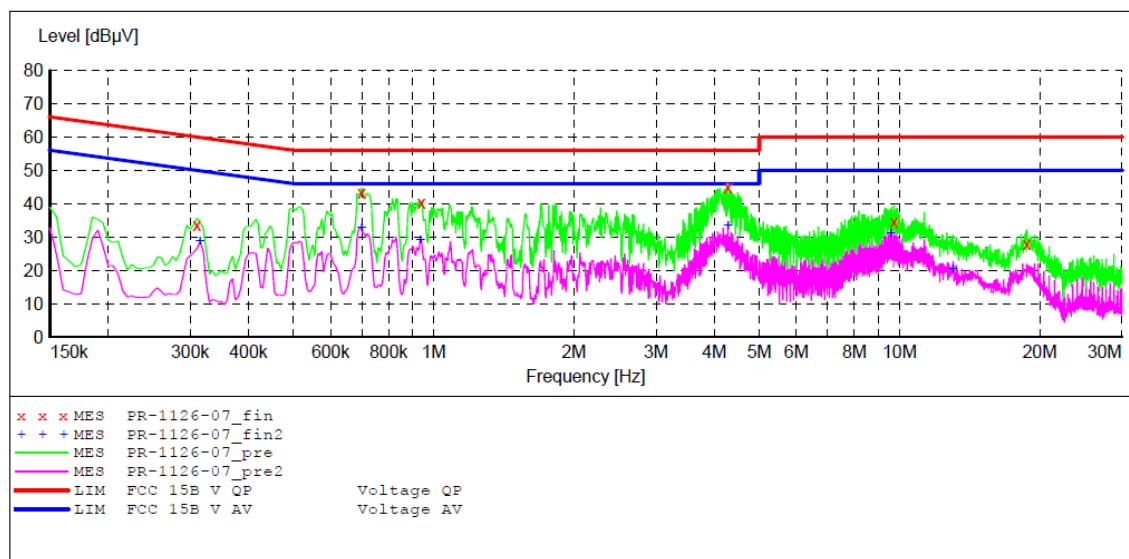
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: LED touch display M/N:LE-55MEM0E
 Manufacturer: PRIMA
 Operating Condition: USB PLAYING
 Test Site: 2#Shielding Room
 Operator: DING
 Test Specification: L 120V/60Hz
 Comment: Report NO.:ATE20162484
 Start of Test: 2016-11-26 / 10:37:03

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

Short Description: SUB STD VTERM2 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 NSLK8126 2008
 Average



MEASUREMENT RESULT: "PR-1126-07_fin"

2016-11-26 10:38

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.310000	33.60	10.9	60	26.4	QP	L1	GND
0.700000	43.20	11.1	56	12.8	QP	L1	GND
0.940000	40.30	11.1	56	15.7	QP	L1	GND
4.280000	45.00	11.4	56	11.0	QP	L1	GND
9.720000	34.70	11.6	60	25.3	QP	L1	GND
18.750000	27.80	11.7	60	32.2	QP	L1	GND

MEASUREMENT RESULT: "PR-1126-07_fin2"

2016-11-26 10:38

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.315000	29.00	10.9	50	20.8	AV	L1	GND
0.700000	33.00	11.1	46	13.0	AV	L1	GND
0.935000	29.10	11.1	46	16.9	AV	L1	GND
4.280000	33.70	11.4	46	12.3	AV	L1	GND
9.580000	31.20	11.6	50	18.8	AV	L1	GND
13.025000	20.60	11.6	50	29.4	AV	L1	GND

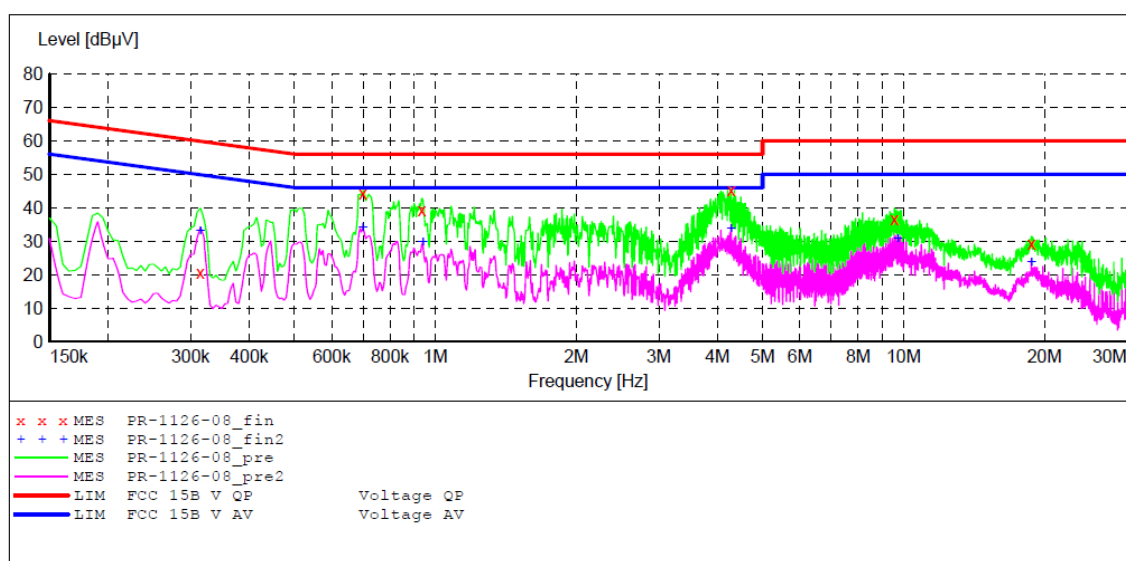
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: LED touch display M/N:LE-55MEM0E
 Manufacturer: PRIMA
 Operating Condition: USB PLAYING
 Test Site: 2#Shielding Room
 Operator: DING
 Test Specification: N 120V/60Hz
 Comment: Report NO.:ATE20162484
 Start of Test: 2016-11-26 / 10:38:32

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

Short Description: SUB STD VTERM2 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 NSLK8126 2008
 Average



MEASUREMENT RESULT: "PR-1126-08_fin"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.315000	20.60	10.9	60	39.2	QP	N	GND
0.700000	44.10	11.1	56	11.9	QP	N	GND
0.935000	39.20	11.1	56	16.8	QP	N	GND
4.280000	45.10	11.4	56	10.9	QP	N	GND
9.550000	36.60	11.6	60	23.4	QP	N	GND
18.750000	29.40	11.7	60	30.6	QP	N	GND

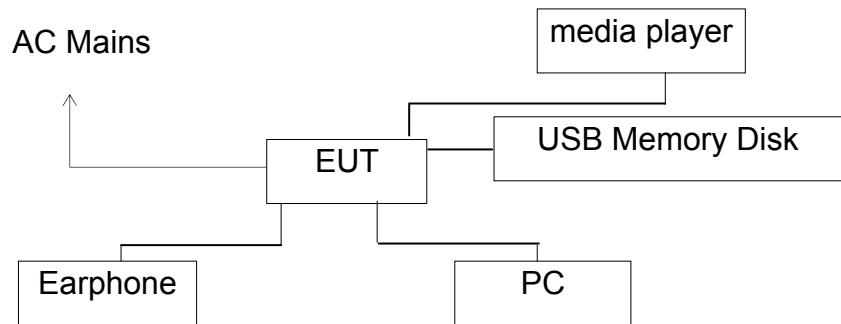
MEASUREMENT RESULT: "PR-1126-08_fin2"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.315000	33.40	10.9	50	16.4	AV	N	GND
0.700000	34.10	11.1	46	11.9	AV	N	GND
0.940000	29.80	11.1	46	16.2	AV	N	GND
4.280000	33.80	11.4	46	12.2	AV	N	GND
9.720000	31.00	11.6	50	19.0	AV	N	GND
18.750000	23.80	11.7	50	26.2	AV	N	GND

5. RADIATED EMISSION MEASUREMENT

5.1. Block Diagram of Test

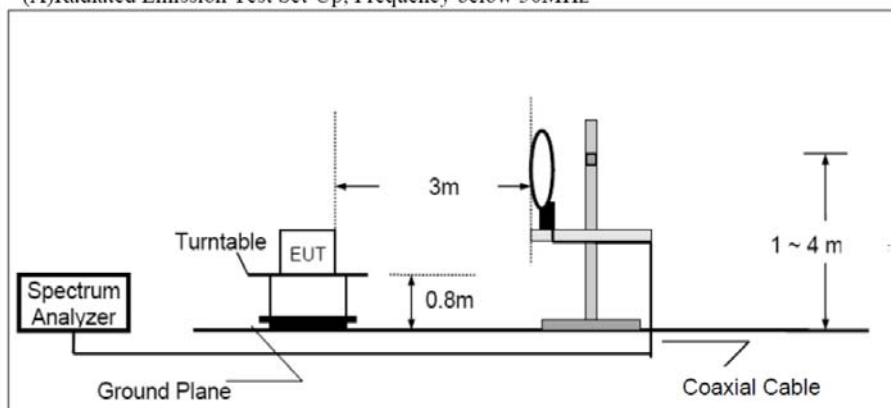
5.1.1. Block diagram of connection between the EUT and simulators



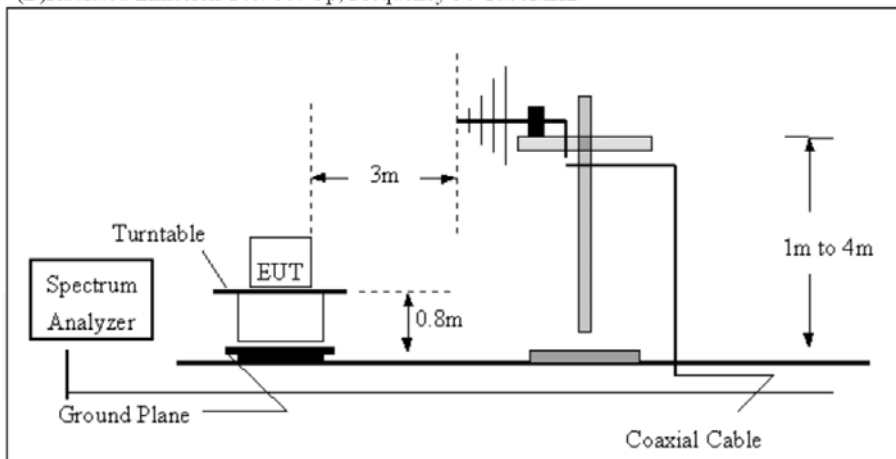
(EUT: LED touch display)

5.1.2. Block diagram of test setup (In chamber)

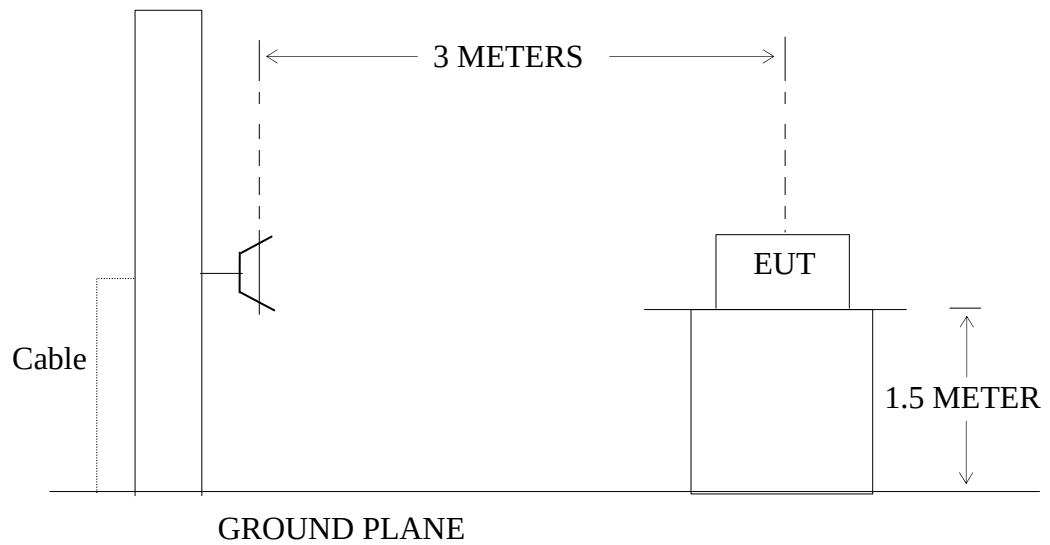
(A) Radiated Emission Test Set-Up, Frequency below 30MHz



(B) Radiated Emission Test Set-Up, Frequency 30-1000MHz



(C) Radiated Emission Test Set-Up, Frequency above 1GHz



5.2. Test mode description

- Test mode 1: AV IN
- Test mode 2: VGA IN
- Test mode 3: COMPONENT IN
- Test mode 4: HDMI IN
- Test mode 5: USB 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 MHz	Distance Meters	Field Strengths Limit	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V/m})$
30-88	3	100	40.0
88-216	3	150	43.5
216-960	3	200	46.0
Above 960	3	500	54.0
Remark: (1) Emission level $\text{dB}(\mu\text{V}) = 20 \log$ Emission level $\mu\text{V/m}$. (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.LED touch display (EUT)

Model Number: LE-55ME0E

Manufacturer: Xiamen Prima Technology 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 9KHz to 2000MHz is checked.

Note: The EUT highest operating frequency provided by Manufacturer is 144MHz, the radiated emission measurement shall be made up to 2 GHz.

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

5.7.Radiated Emission Noise Measurement Result

PASS.

The frequency range from 9KHz to 2000MHz is investigated.

The radiation emissions from 9K-30MHz is not reported, because the test values lower than the limits of 20dB.

The spectral diagrams are attached as below.

Below 1GHz



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

Job No.: DING11 #355

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: LED touch display

Mode: AV IN

Model: LE-55ME0E

Manufacturer: PRIMA

Polarization: Horizontal

Power Source: AC 120V/60Hz

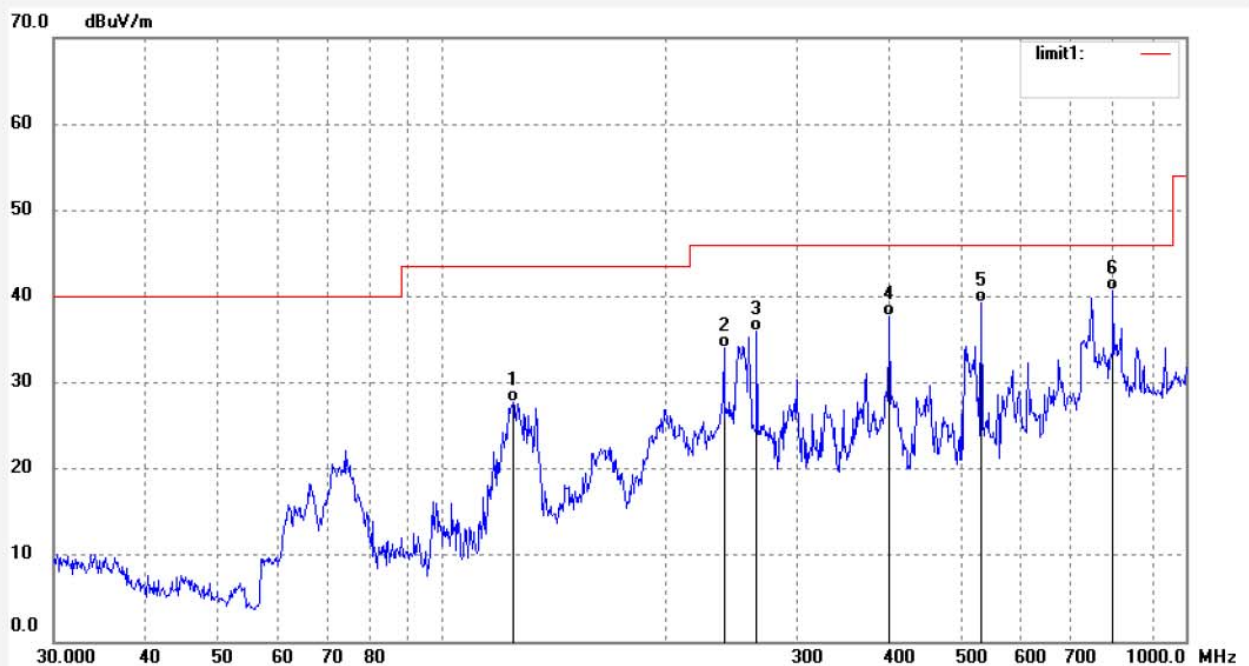
Date: 16/11/30/

Time: 9/17/15

Engineer Signature: DING

Distance: 3m

Note: Report NO:ATE20162484



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	124.4868	49.83	-22.03	27.80	43.50	-15.70	QP			
2	239.3017	52.23	-18.18	34.05	46.00	-11.95	QP			
3	264.9707	53.30	-17.25	36.05	46.00	-9.95	QP			
4	399.6981	50.64	-13.01	37.63	46.00	-8.37	QP			
5	531.2910	49.40	-10.15	39.25	46.00	-6.75	QP			
6	798.6204	44.96	-4.19	40.77	46.00	-5.23	QP			

Job No.: DING11 #354

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: LED touch display

Mode: AV IN

Model: LE-55ME0E

Manufacturer: PRIMA

Polarization: Vertical

Power Source: AC 120V/60Hz

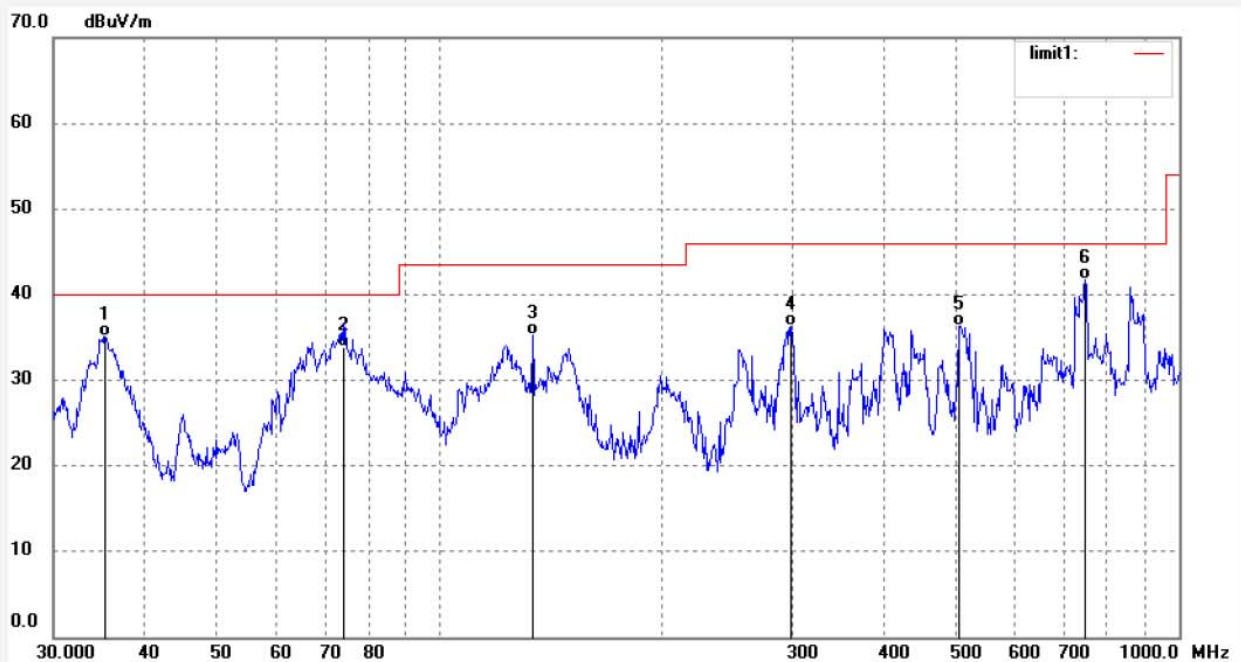
Date: 16/11/30/

Time: 9/14/52

Engineer Signature: DING

Distance: 3m

Note: Report NO:ATE20162484



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	35.2625	51.13	-16.05	35.08	40.00	-4.92	QP			
2	74.0092	56.18	-22.26	33.92	40.00	-6.08	QP			
3	133.5491	57.52	-22.20	35.32	43.50	-8.18	QP			
4	298.5932	52.07	-15.78	36.29	46.00	-9.71	QP			
5	504.0151	47.18	-10.82	36.36	46.00	-9.64	QP			
6	747.0465	46.93	-5.21	41.72	46.00	-4.28	QP			

Job No.: DING11 #360

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: LED touch display

Mode: VGA IN

Model: LE-55ME0E

Manufacturer: PRIMA

Polarization: Horizontal

Power Source: AC 120V/60Hz

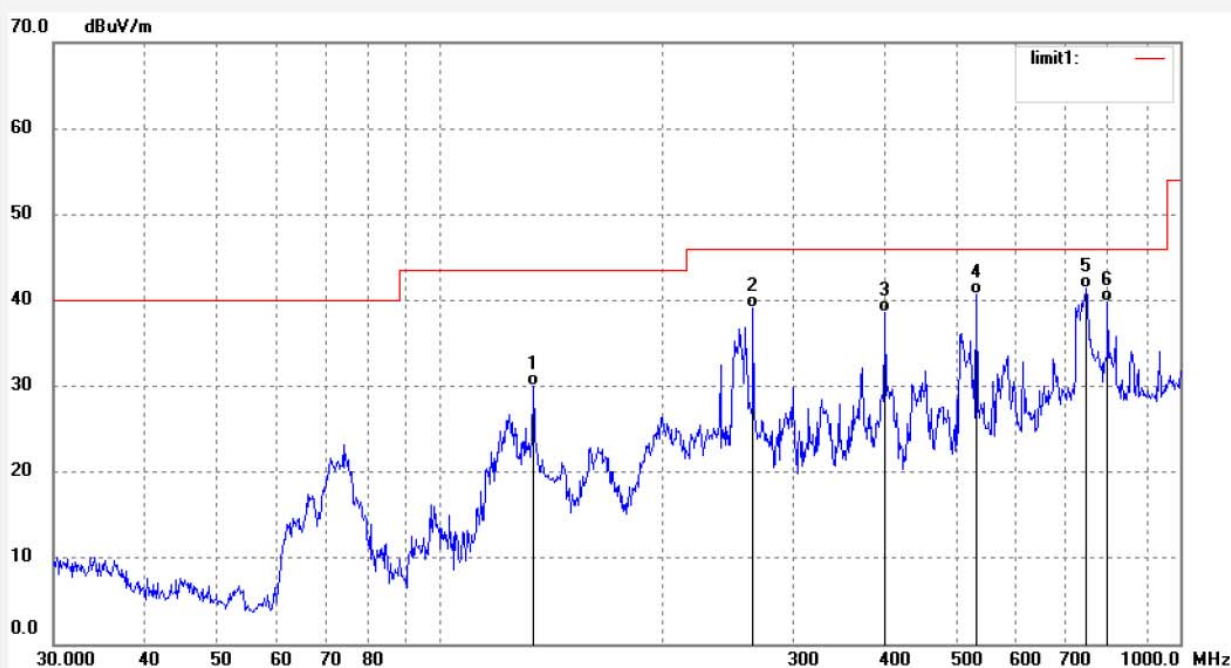
Date: 16/11/30/

Time: 9/29/12

Engineer Signature: DING

Distance: 3m

Note: Report NO:ATE20162484



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	133.5491	52.28	-22.20	30.08	43.50	-13.42	QP			
2	264.9707	56.30	-17.25	39.05	46.00	-6.95	QP			
3	399.6981	51.64	-13.01	38.63	46.00	-7.37	QP			
4	531.2910	50.90	-10.15	40.75	46.00	-5.25	QP			
5	747.0465	46.56	-5.21	41.35	46.00	-4.65	QP			
6	798.6204	43.96	-4.19	39.77	46.00	-6.23	QP			

Job No.: DING11 #361

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: LED touch display

Mode: VGA IN

Model: LE-55ME0E

Manufacturer: PRIMA

Polarization: Vertical

Power Source: AC 120V/60Hz

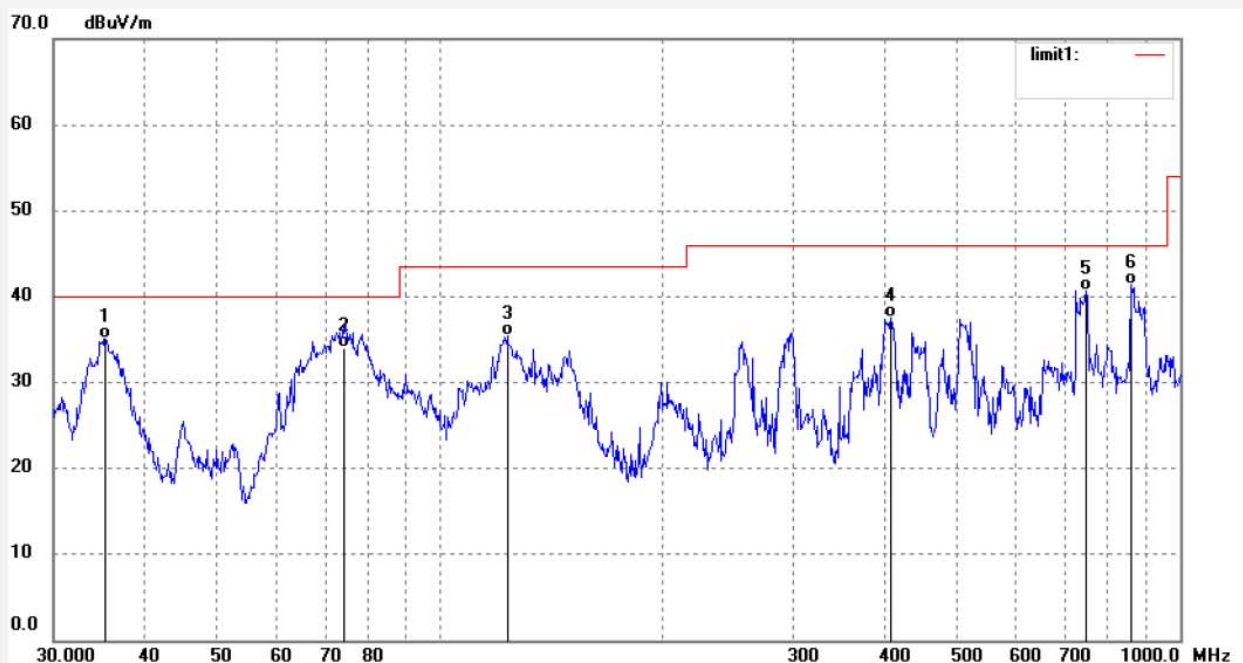
Date: 16/11/30/

Time: 9/32/07

Engineer Signature: DING

Distance: 3m

Note: Report NO:ATE20162484



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	35.2625	51.13	-16.05	35.08	40.00	-4.92	QP			
2	74.0092	56.27	-22.26	34.01	40.00	-5.99	QP			
3	123.1812	57.35	-21.99	35.36	43.50	-8.14	QP			
4	406.7819	50.47	-12.88	37.59	46.00	-8.41	QP			
5	747.0465	45.93	-5.21	40.72	46.00	-5.28	QP			
6	859.7753	44.43	-3.07	41.36	46.00	-4.64	QP			

Job No.: DING11 #356

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: LED touch display

Mode: COMPONENT IN

Model: LE-55ME0E

Manufacturer: PRIMA

Polarization: Horizontal

Power Source: AC 120V/60Hz

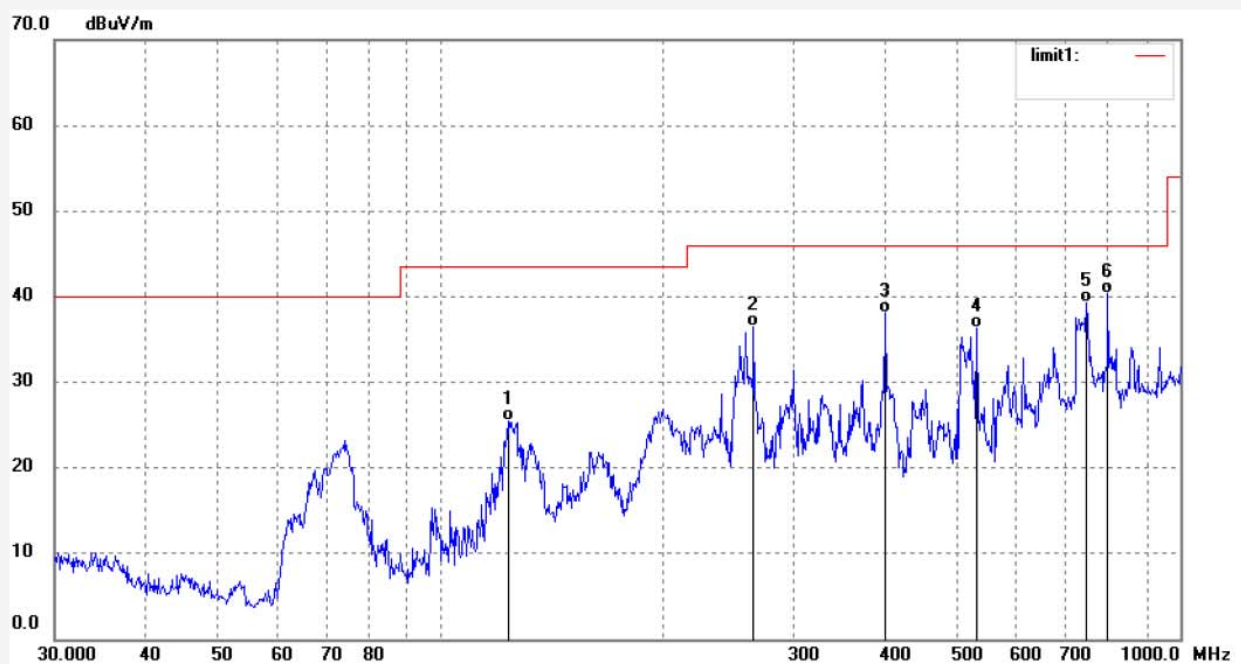
Date: 16/11/30/

Time: 9/19/28

Engineer Signature: DING

Distance: 3m

Note: Report NO:ATE20162484



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	123.1812	47.53	-21.99	25.54	43.50	-17.96	QP			
2	264.9707	53.80	-17.25	36.55	46.00	-9.45	QP			
3	399.6981	51.14	-13.01	38.13	46.00	-7.87	QP			
4	531.2910	46.40	-10.15	36.25	46.00	-9.75	QP			
5	747.0465	44.56	-5.21	39.35	46.00	-6.65	QP			
6	798.6204	44.46	-4.19	40.27	46.00	-5.73	QP			

Job No.: DING11 #357

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: LED touch display

Mode: COMPONENT IN

Model: LE-55ME0E

Manufacturer: PRIMA

Polarization: Vertical

Power Source: AC 120V/60Hz

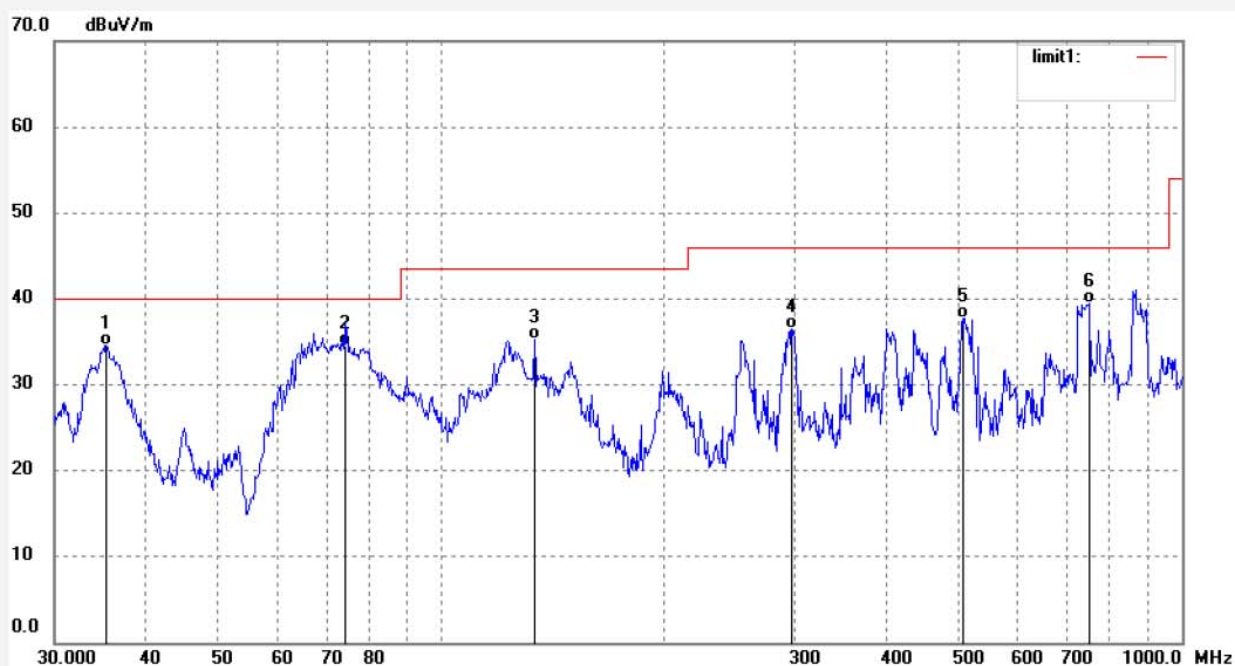
Date: 16/11/30/

Time: 9/22/37

Engineer Signature: DING

Distance: 3m

Note: Report NO:ATE20162484



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	35.2625	50.63	-16.05	34.58	40.00	-5.42	QP			
2	74.0092	56.87	-22.26	34.61	40.00	-5.39	QP			
3	133.5491	57.52	-22.20	35.32	43.50	-8.18	QP			
4	297.5459	52.32	-15.82	36.50	46.00	-9.50	QP			
5	507.5692	48.47	-10.72	37.75	46.00	-8.25	QP			
6	749.6761	44.62	-5.14	39.48	46.00	-6.52	QP			