

FCC TEST REPORT

For

FINGERTEC WORLDWIDE SDN BHD

FINGERPRINT

Model : R2/M2

Prepared For : FINGERTEC WORLDWIDE SDN BHD
NO.6, 8 & 10, JALAN BK 3/2, BANDAR KINRARA,
47100 PUCHONG, SELANGOR

Prepared By : Shenzhen BST Technology Co., Ltd.
3F, Weames Technology Building, No. 10 Kefa Road,
Science Park, Nanshan District, Shenzhen, Guangdong, China

Date of Test : Apr.07-08, 2008
Date of Report : Apr.09, 2008
Report Number: BTFC0804075001

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DECLARATION OF CONFORMITY TEST REPORT DECLARATION

Applicant : FINGERTEC WORLDWIDE SDN BHD
Manufacturer : FINGERTEC WORLDWIDE LIMITED EUT
Description : FINGERPRINT

(A) MODEL NO. : R2/M2

(B) Remark : N/A

(C) SERIAL NO. : N/A

Test Standards:

FCC Part 15:2005

The EUT described above is tested by US to determine the maximum emission levels emanating from the EUT, the maximum emission levels are compared to the FCC Part 15 Subpart Class B limits. The measurement results are contained in this test report. and Shenzhen BST Technology Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT is to be 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 Shenzhen BST Technology Co., Ltd.

Date of Test : Apr.07-08,2008

Prepared by : _____
Jack Li / Assistant

Reviewer : _____
Mary Du / Supervisor

Approved & Authorized Signer : _____
Christina / Manager

1. TEST RESULTS SUMMARY

Table 1 Test Results Summary

Test Items	Test Results
Conducted disturbance	Pass
Radiated disturbance	Pass

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Description : FINGERPRINT

Model Number : R2/M2

Applicant : FINGERTEC WORLDWIDE SDN BHD
NO.6, 8 & 10, JALAN BK 3/2, BANDAR KINRARA,
47100 PUCHONG, SELANGOR

Manufacturer : FINGERTEC WORLDWIDE LIMITED
Peking University Founder Shiyan Science Park,
Bao ' an, Shezhen, China. 518108

Date of Test : Apr.07-08, 2008

2.2. Test Facility

Site Description

EMC Lab. : Certificated by TIMCO

Name of Firm : Shenzhen BST Technology Co., Ltd.

Site Location : 3F, Weames Technology Building,
No. 10 Kefa Road, Science Park,
Nanshan District, Shenzhen, Guangdong, China

2.3. Test Uncertainty

Conducted Emission Uncertainty = $\pm 2.66\text{dB}$

Radiated Emission Uncertainty = $\pm 4.26\text{dB}$

3. TEST INSTRUMENT USED

3.1. For Conducted Emission Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS30	828985/018	Jun. 01, 07	1 Year
2.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100006	Jun. 01, 07	1 Year
3.	L.I.S.N.	Rohde & Schwarz	ESH2-Z5	834549/005	Jun. 01, 07	1 Year
4.	Conical	Emtek	N/A	N/A	N/A	N/A
5.	Voltage Probe	Schwarzbeck	TK9416	N/A	Jun. 01,07	1 Year
6.	Coaxial Switch	Anritsu	MP59B	6100214550	Jun. 01, 07	1 Year

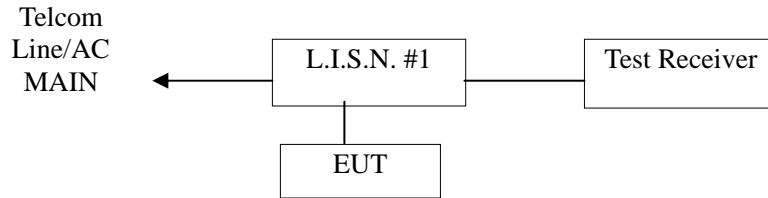
3.2. For Radiated Emission Measurement

Anechoic Chamber

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	ANRITSU	MS2661C	6200140915	Jun. 01,07	1 Year
2.	Test Receiver	Rohde&Schwarz	ESC830	828982/018	Jun .01,07	1 Year
3.	Bilog Antenna	Schwarzbeck	VULB9163	142	Jun .01,07	1 Year
4.	50 Coaxial Switch	Anritsu Corp	MP59B	6100237248	Jun .01,07	1 Year
5.	Cable	Schwarzbeck	AK9513	ACRX1	Jun .01,07	1 Year
6.	Cable	Rosenberger	N/A	FR2RX2	Jun .01,07	1 Year
7.	Cable	Schwarzbeck	AK9513	CRRX2	Jun .01,07	1 Year
8.	Cable	Schwarzbeck	AK9513	CRRX2	Jun .01,07	1 Year
9.	Single Phase Power Line Filter	MPE	23332C	N/A	Jun .01,07	1 Year
10.	Single Phase Power Line Filter	MPE	23333C	N/A	Jun .01,07	1 Year
11.	Signal Generator	HP	864A	3625U00573	Jun .01,07	1 Year

4. CONDUCTED EMISSION TEST

4.1. Block Diagram of Test Setup



(EUT: FINGERPRINT)

4.2. Test Standard

FCC Part 15: 2005

4.3. Conducted Emission Limit(Class B)

Frequency MHz	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.

4.4. EUT Configuration on Test

The following equipments are installed on conducted emission test to meet EN55022 requirement and operating in a manner, which tends to maximize its emission characteristics in a normal application.

4.4.1. FINGERPRINT

Model Number : **R2/M2**
 Serial Number : **N/A**

4.5. Operating Condition of EUT

4.5.1. Setup the EUT and simulators as shown in Section 4.1.

4.5.2. Turn on the power of all equipments.

4.5.3. Let the EUT work in test modes (EUT Working) and test it.

4.6. Test Procedure

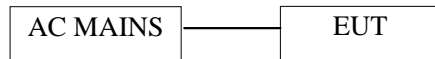
The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI test receiver (R&S Test Receiver ESCS30) is used to test the emissions form both sides of AC line. The bandwidth of EMI test receiver is set at 9kHz.

The bandwidth of the test receiver (R&S Test Receiver ESHS30) is set at 10KHz.

5. RADIATED EMISSION MEASUREMENT

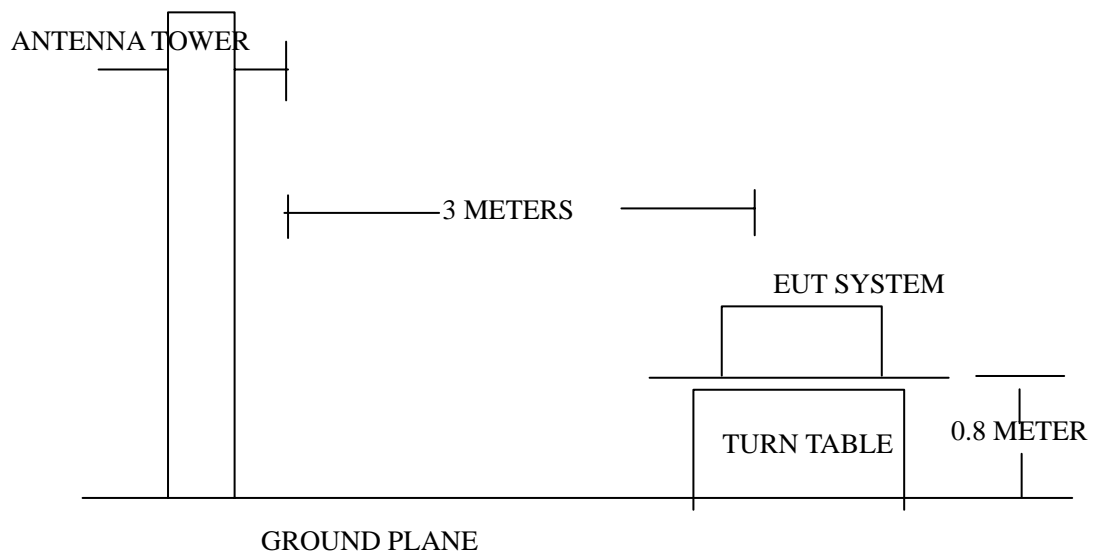
5.1. Block Diagram of Test Setup

5.1.1. Block Diagram of connection between the EUT and the simulators



(EUT: FINGERPRINT)

5.1.2. Anechoic Chamber Test Setup Diagram



5.2. Test Standard

FCC Part 15: 2005

5.3. Radiated Emission Limit(Class B)

FREQUENCY (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMITS (dBμV/m)
30 ~ 88	3	40.0
88 ~ 216	3	43.5
216 ~ 960	3	46.0
960 ~ 1000	3	54.0

Note:(1) The smaller limit shall apply at the edge between two frequency bands.

(2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the EUT or system.

5.4. EUT Configuration on Test

The following equipment 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.

5.5. Operating Condition of EUT

- 5.5.1. Setup the EUT as shown on Section 4.1
- 5.5.2. Turn on the power of all equipments.
- 5.5.3. Let the EUT work in test mode(EUT working) and measure it.

5.6. Test Procedure

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on an antenna tower. The antenna can move up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna (calibrated by dipole antenna) are used as a receiving antenna. Both horizontal and vertical polarization of the antenna are set on measurement.

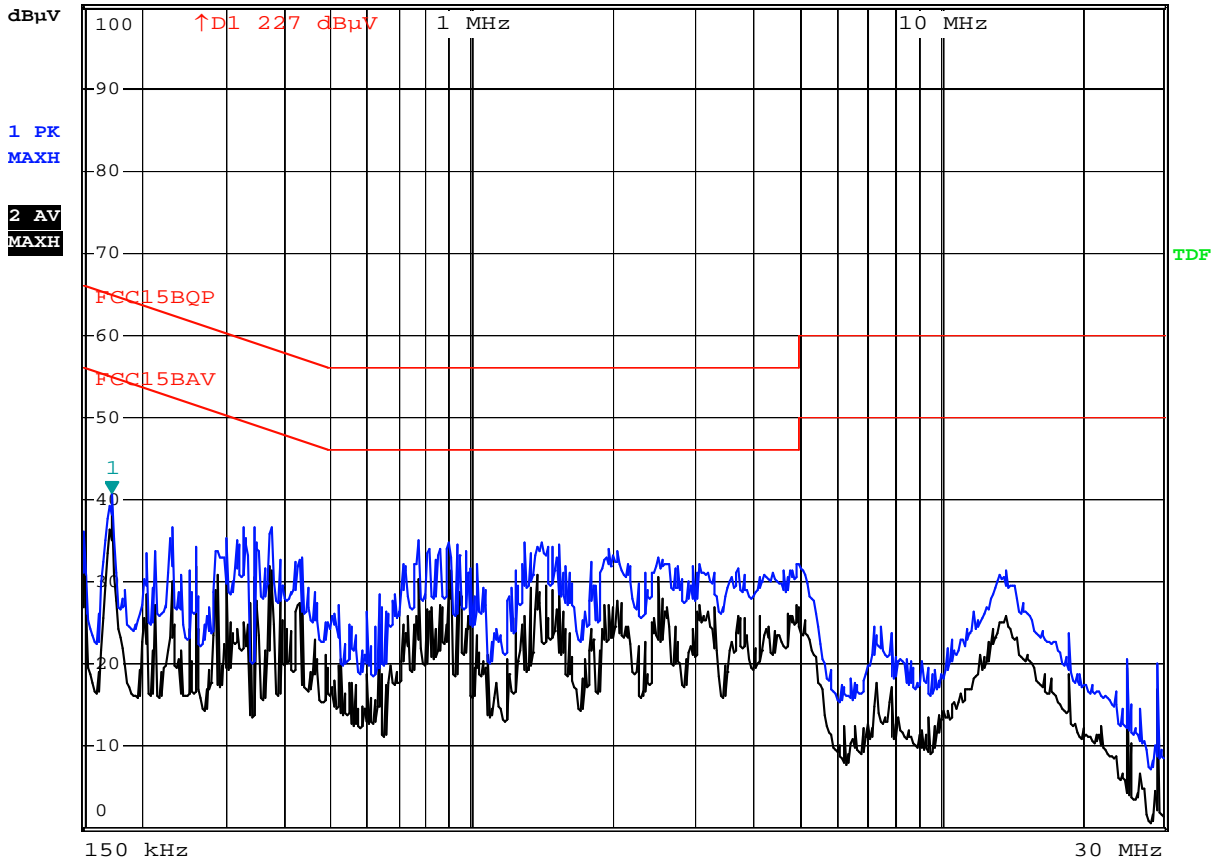
The bandwidth setting on the test receiver (R&S TEST RECEIVER ESCS20) is 120 KHz. The EUT is tested in Anechoic Chamber. The frequency range from 30MHz to 1000 MHz is checked. All the test results are listed in Section 4.7. and all the scanning waveform are attached within **Appendix I**.

APPENDIX I Test Curves



RBW 9 kHz Marker 1 [T1]
MT 1 ms 40.78 dBμV
PREAMP OFF 170.00000000 kHz

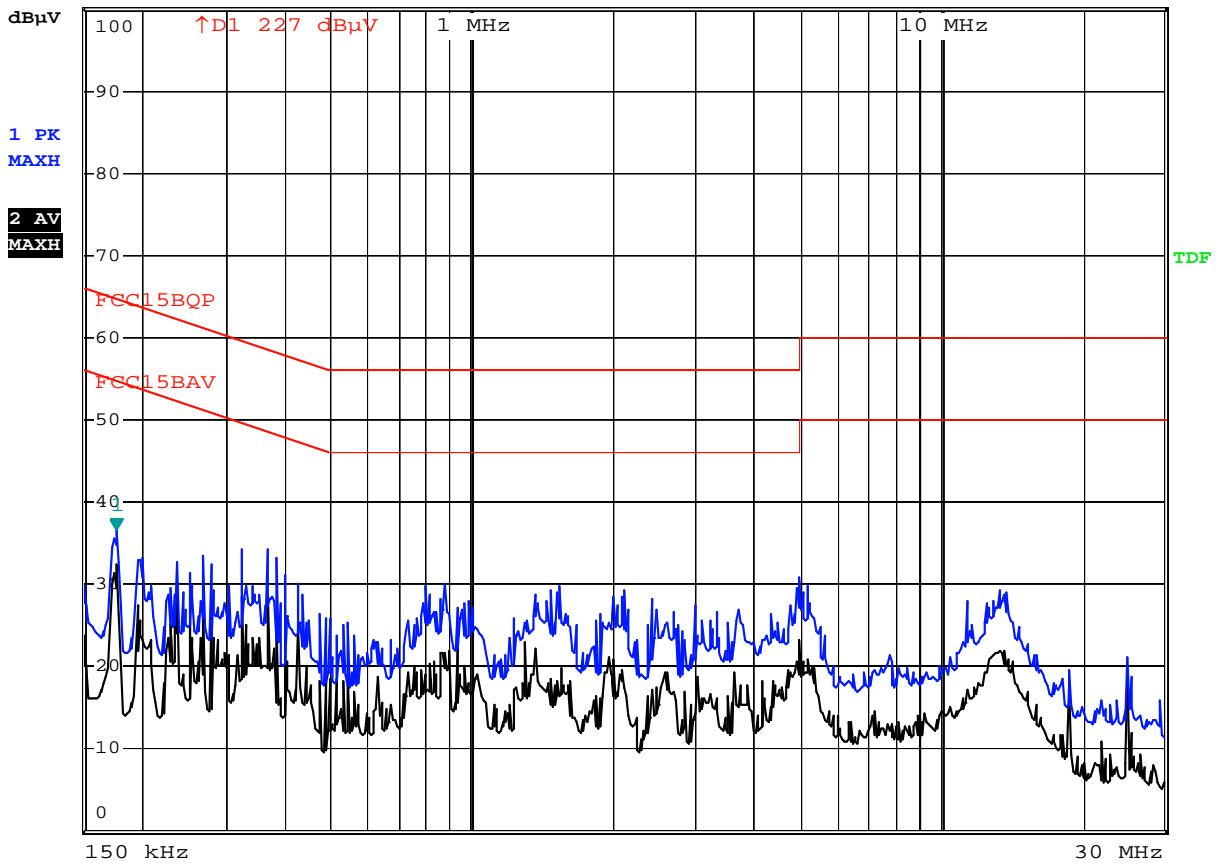
Att 0 dB



Date: 7.APR.2008 16:34:48

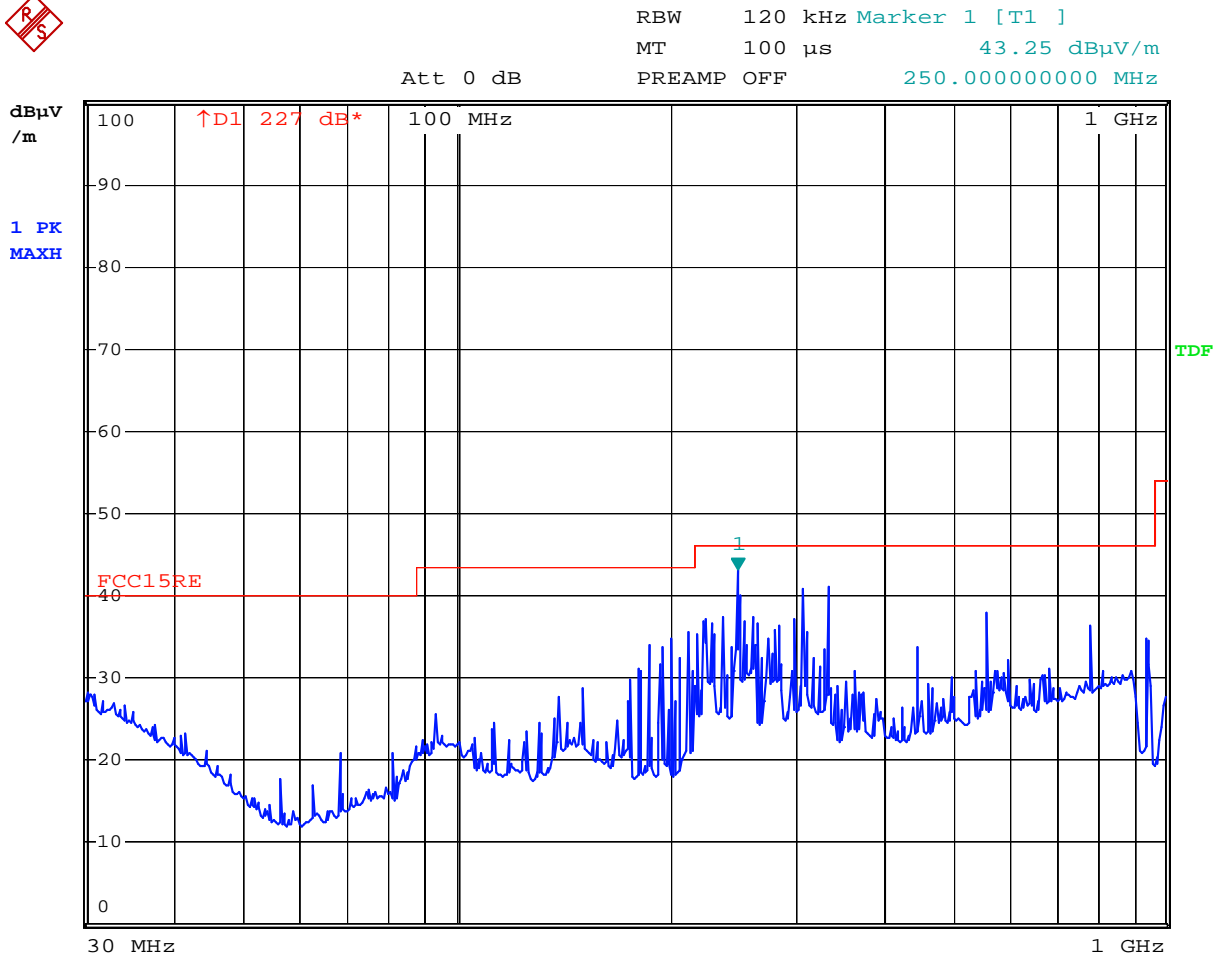


RBW 9 kHz Marker 1 [T1]
MT 1 ms 36.68 dBμV
Att 0 dB PREAMP OFF 174.00000000 kHz



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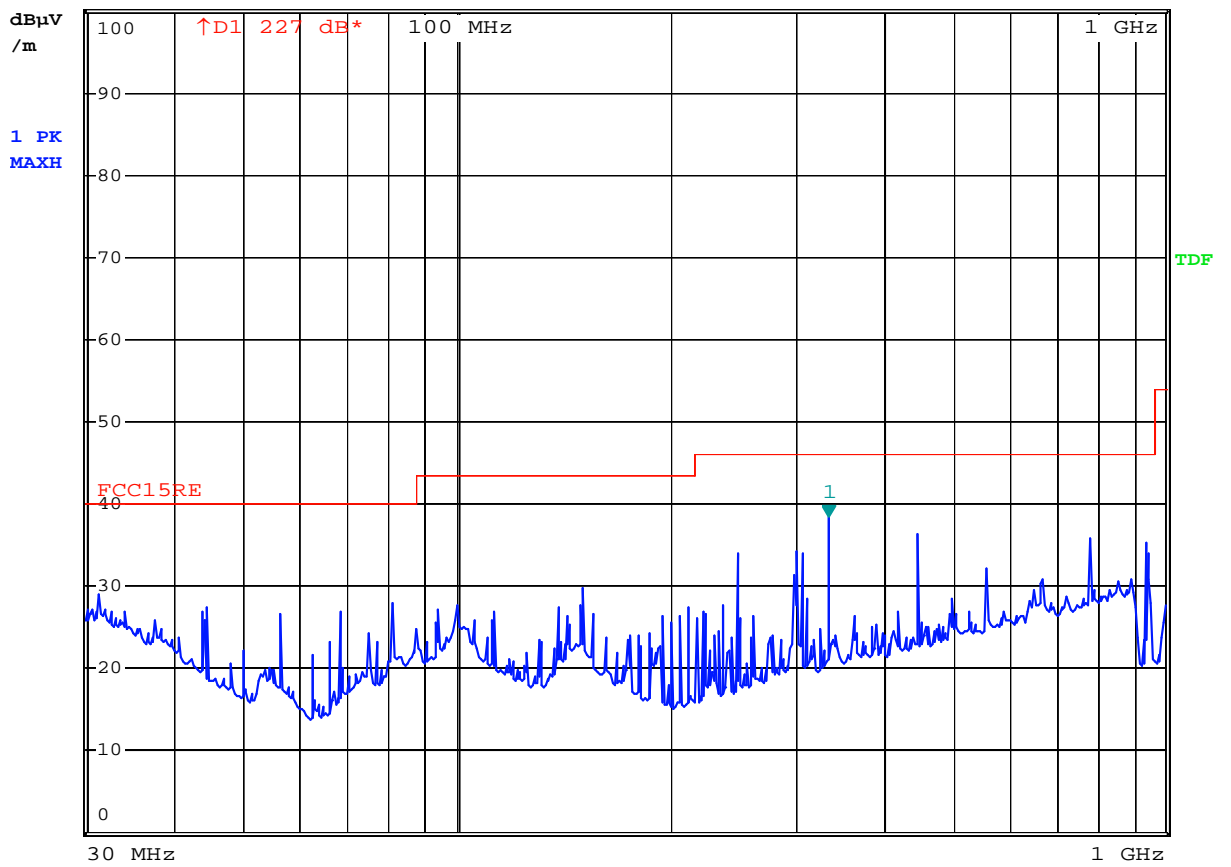
APPENDIX II



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Att 0 dB RBW 120 kHz Marker 1 [T1]
MT 100 μs 38.37 dBμV/m
PREAMP OFF 335.44000000 MHz



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APPENDIX III

(Photos of the EUT)



Figure 1
General Appearance of EUT



Figure 2
General Appearance of EUT



Figure 3
Inside of EUT



Figure 4
Inside of EUT



Figure 5
Test scene



Figure 6
Test scene