



FCC TEST REPORT

REPORT NO.: RF960522L15A

MODEL NO.: 1115

RECEIVED: Jul. 02, 2007

TESTED: Jul. 04 ~ Jul. 05, 2007

ISSUED: Jul. 18, 2007

APPLICANT: Microsoft Corporation

ADDRESS: One Microsoft Way, Redmond WA 98052-6399, U.S.A

ISSUED BY: Advance Data Technology Corporation

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1. CERTIFICATION

PRODUCT: Microsoft® Mobile Memory Mouse 8000
MODEL NO.: 1115
BRAND NAME: Microsoft®
APPLICANT: Microsoft Corporation
TESTED: Jul. 04 ~ Jul. 05, 2007
TEST SAMPLE: ENGINEERING SAMPLE
STANDARDS: **FCC Part 15, Subpart C (Section 15.247),**
ANSI C63.4-2003

The above equipment (model: 1115) have been tested by **Advance Data Technology Corporation**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Andrea Hsia , **DATE:** Jul. 18, 2007
Andrea Hsia / Specialist

TECHNICAL
ACCEPTANCE : Long Chen , **DATE:** Jul. 18, 2007
Responsible for RF Long Chen / Senior Engineer

APPROVED BY : Gary Chang , **DATE:** Jul. 18, 2007
Gary Chang / Deputy Manager

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	REMARK
15.207	AC Power Conducted Emission	NA	NA
15.247(a)(1)(iii)	Number of Hopping Frequency Used Spec.: At least 15 channels	NA	NA
15.247(a)(1)(iii)	Dwell Time on Each Channel Spec. : Max. 0.4 second within 31.6 second	NA	NA
15.247(a)(1)	1. Hopping Channel Separation Spec. : Min. 25 kHz or 20 dB bandwidth, whichever is greater 2. Spectrum Bandwidth of a Frequency Hopping Sequence Spread Spectrum System	NA	NA
15.247(b)	Maximum Peak Output Power Spec.: max. 30dBm	NA	NA
15.247(d)	Transmitter Radiated Emissions Spec.: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is -15.46dB at 2390.00MHz.
15.247(d)	Band Edge Measurement	PASS	Meet the requirement of limit.

2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Radiated emissions	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

3. GENERAL INFORMATION

3.1. GENERAL DESCRIPTION OF EUT

PRODUCT	Microsoft® Mobile Memory Mouse 8000
MODEL NO.	1115
FCC ID	C3K1115
POWER SUPPLY	1.2Vdc from battery (battery mode) 5.0Vdc from host equipment (charger mode)
MODULATION TYPE	GFSK
RADIO TECHNOLOGY	FHSS
TRANSFER RATE	172.8kbps
FREQUENCY RANGE	2402~2480 MHz
NUMBER OF CHANNEL	79
OUTPUT POWER	0.800mW
ANTENNA TYPE	PCB antenna with 0.40dBi gain
I/O PORT	USB
DATA CABLE	0.9m non-shielded USB cable without core
ACCESSORY DEVICES	NA

NOTE:

1. This report is issued as a supplementary report of ADT report no.: RF960522L15. This report is prepared for FCC class II permissive change. The differences compared with the original design are some component changed for antenna matching. Therefore we re-tested the radiation emission test above 1GHz, bandedge test and presented in the test report.
2. RF output power is the same as the original test report.
3. After pre-tested all the test modes, only charge mode was the worst and presented in the test report.
4. Bluetooth technology is used in this EUT.
5. Pluto Configuration Information:

Configuration #:		Comments: EV2 phase Mouse unit for formal report			
Manufacturer	Component type	Part no.	Revision no.	Description	BOM (if known)
Microsoft	Mouse			Model: 1115	
Infineon	Optical Sensor, BT IC	11300699200	3.0	SINATRA, 52P, UAB9651OC	11300699200
Freescale	Microcontroller	11300837200		MC9S08QG8CFFE	11300837200
Microchip	EEProm	11300788200		24128, 8P, EEPROM	11300788200
ULM	Laser	ULM855-G2-T N-SSMDTL	NA	VCSEL (850nm), SMD	11740049200
Microsoft	firmware			blvelvet_TR30_P35_IFXP09(Alvin) button_test.sdf	
KYE	PCB Assy	20001042200	02	ALVIN, BT MOUSE, POWER, HANDSOLDER, FREESCALE	20001042200
Express	PCB	10230728200	03	ALVIN P/W BD, SP802, 2L, 49.73X37, OM-060072	10230728200
KYE	PCB Assy	20001035201	01	ALVIN, BT MOUSE, MAIN, HANDSOLDER	20001035201
Happy	PCB	10230727200	03	ALVIN, SINATRA, BT, 4L, 40.41X48.3, OM-060072	10230727200
KYE	PCB Assy	20001040200	02	ALVIN, BT MOUSE, SWITCH, HANDSOLDER	20001040200
Ta Chien	PCB	10230729200	03	ALVIN SW BOARD, S2L, 38.8X64.5, OM-060072	10230729200



Definition of configuration #: The configuration number (#) is used for traceability to a particular BOM (Bill of Materials). It is an easy way to readily identify and convey the construction of a without having to include all of the details of a BOM on every test data sheet. If two sets of test data have test samples with the same configuration # then the construction details of those test samples can readily be determined (as long as the configuration # correctly corresponds to a BOM) and that these two test samples have been constructed identically.

Detailed information on the configuration of the tested samples is required in order to track performance changes across various revisions of the hardware and to document that the samples tested are representative of the final configuration that will be manufactured in production.

Any prototype or pre-production components must be clearly identified in the configuration table.

6. The details of EUT samples listed as below:

Sample	Serial No.
Mouse sample 1	073
Mouse sample 2	068
Mouse sample 3	077

7. The above EUT information was declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

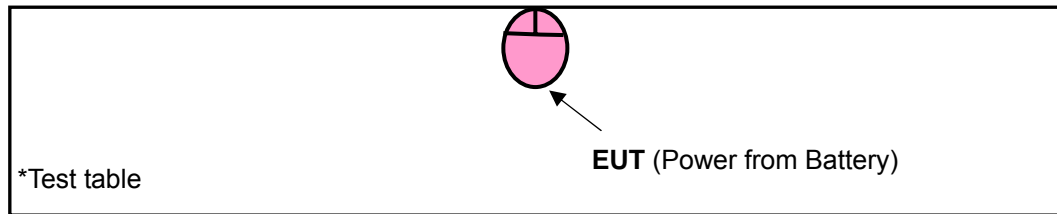
3.2. DESCRIPTION OF TEST MODES

79 channels are provided to this EUT:

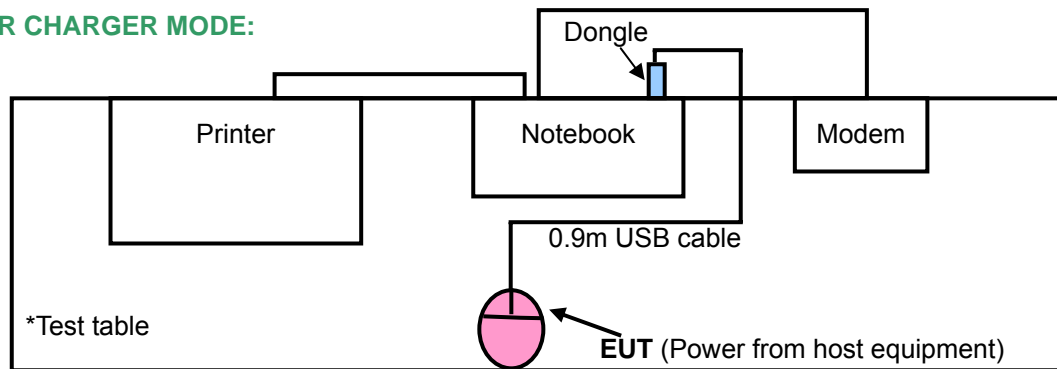
CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)
0	2402	20	2422	40	2442	60	2462
1	2403	21	2423	41	2443	61	2463
2	2404	22	2424	42	2444	62	2464
3	2405	23	2425	43	2445	63	2465
4	2406	24	2426	44	2446	64	2466
5	2407	25	2427	45	2447	65	2467
6	2408	26	2428	46	2448	66	2468
7	2409	27	2429	47	2449	67	2469
8	2410	28	2430	48	2450	68	2470
9	2411	29	2431	49	2451	69	2471
10	2412	30	2431	50	2452	70	2472
11	2413	31	2433	51	2453	71	2473
12	2414	32	2434	52	2454	72	2474
13	2415	33	2435	53	2455	73	2475
14	2416	34	2436	54	2456	74	2476
15	2417	35	2437	55	2457	75	2477
16	2418	36	2438	56	2458	76	2478
17	2419	37	2439	57	2459	77	2479
18	2420	38	2440	58	2460	78	2480
19	2421	39	2441	59	2461		

3.2.1. CONFIGURATION OF SYSTEM UNDER TEST

FOR BATTERY MODE:



FOR CHARGER MODE:



3.2.2. TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	Applicable to		Description
	RE \geq 1G	BM	
-	√	√	Charger mode

Where **RE<1G**: Radiated Emission below 1GHz **BM**: Bandedge Measurement

RADIATED EMISSION TEST (ABOVE 1 GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and packet types.
- Following channel(s) was (were) selected for the final test as listed below.

SERIAL NO OF SAMPLE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	PACKET TYPE
068	0 to 78	0, 78	FHSS	GFSK	DH1

BANDEDGE MEASUREMENT:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and packet types.
- Following channel(s) was (were) selected for the final test as listed below.

SERIAL NO OF SAMPLE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	PACKET TYPE
073	0 to 78	0, 78	FHSS	GFSK	DH1
068	0 to 78	0, 78	FHSS	GFSK	DH1
077	0 to 78	0, 78	FHSS	GFSK	DH1



3.2.3. GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C. (15.247)

ANSI C63.4- 2003

All test items have been performed and recorded as per the above standards.

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

3.2.4. DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP05L	16484462992	E2K24CLNS
2	PRINTER	EPSON	LQ-300+	DCGY054147	FCC DoC Approved
3	MODEM	ACEEX	1414V/3	0401008269	IFAXDM1414
4	Microsoft® 2.4 GHz Transceiver with Memory v1.0	Microsoft®	1116	GU-EV2-125	C3K1116

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	1.2m shielded cable
3	1.2m shielded cable
4	NA

NOTE:

1. All power cords of the above support units are non shielded (1.8m).
2. Item 4 was supplied from client.

4. TEST TYPES AND RESULTS

4.1. RADIATED EMISSION MEASUREMENT

4.2.1. LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.



4.2.2. TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCI	100424	Aug. 04, 2007
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100025	Oct. 05, 2007
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	May 31, 2008
HORN Antenna SCHWARZBECK	9120D	9120D-209	Jun. 28, 2008
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 28, 2007
Preamplifier Agilent	8447D	2944A10633	Oct. 26, 2007
Preamplifier Agilent	8449B	3008A01964	Oct. 26, 2007
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	238137/4	Dec. 11, 2007
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	233233/4	Nov. 14, 2007
Software ADT.	ADT_Radiated_V7.6	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA
Antenna Tower Controller inn-co GmbH	CO2000	017303	NA
Turn Table ADT.	TT100.	TT93021703	NA
Turn Table Controller ADT.	SC100.	SC93021703	NA

- NOTE:**
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in HwaYa Chamber 3.
 3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
 4. The VCCI Site Registration No. is R-237.
 5. The IC Site Registration No. is IC3789B-3.

4.2.3. TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

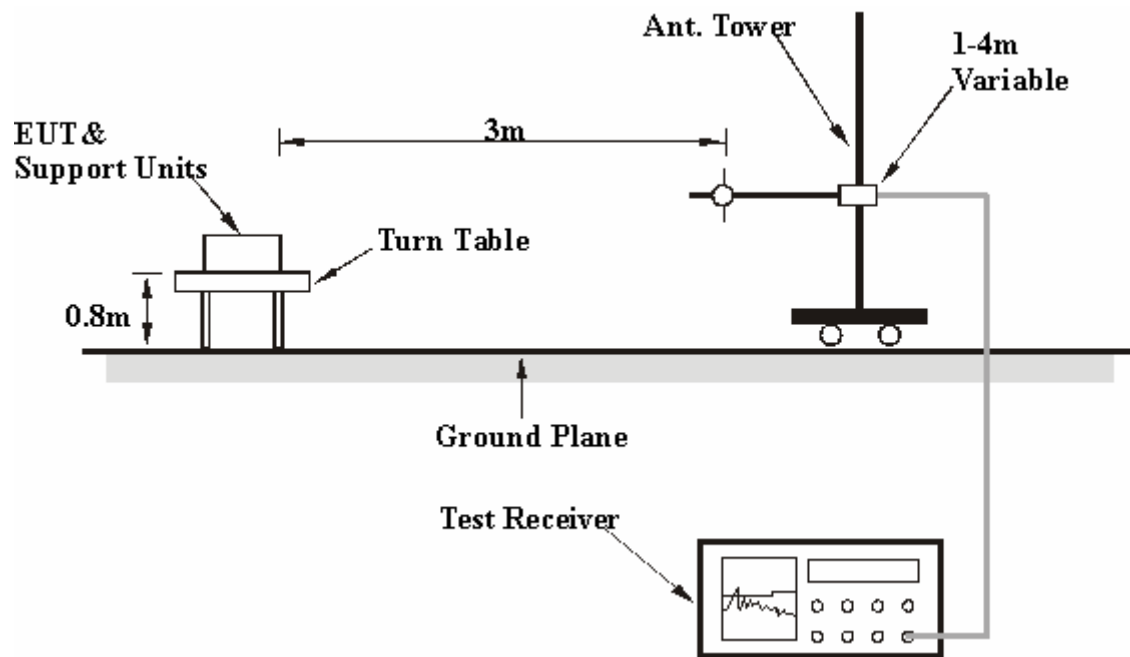
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.

4.2.4. DEVIATION FROM TEST STANDARD

No deviation

4.2.5. TEST SETUP



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6. EUT OPERATING CONDITIONS

Same as 4.1.6

4.2.7. TEST RESULTS

RADIATED WORST CASE DATA: ABOVE 1GHz

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 0	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	GFSK	DETECTOR FUNCTION	Peak (PK) Average (AV)
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	26deg. C, 65%RH, 991hPa
TESTED BY	Dean Wang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	43.21 PK	74.00	-30.79	1.00 H	334	10.51	32.70
2	2390.00	38.54 AV	54.00	-15.46	1.00 H	334	5.84	32.70
3	*2402.00	94.13 PK			1.08 H	320	61.38	32.75
4	*2402.00	56.07 AV			1.08 H	320	23.32	32.75
5	4804.00	49.78 PK	74.00	-24.22	1.00 H	215	11.30	38.48
6	4804.00	11.72 AV	54.00	-42.28	1.00 H	215	-26.76	38.48

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	37.48 PK	74.00	-36.52	1.18 V	325	4.78	32.70
2	2390.00	32.11 AV	54.00	-21.89	1.18 V	325	-0.59	32.70
3	*2402.00	87.78 PK			1.18 V	326	55.03	32.75
4	*2402.00	49.72 AV			1.18 V	326	16.97	32.75
5	4804.00	48.20 PK	74.00	-25.80	1.00 V	125	9.72	38.48
6	4804.00	10.14 AV	54.00	-43.86	1.00 V	125	-28.34	38.48

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The DH1 packet was the worse case duty cycle for a transmit dwell time on a channel, based upon bluetooth theory the transmitter is on 0.625 * 2 per 1.25ms per channel. Therefore, the duty cycle be equal to: $20\log(1.25/100) = -38.06$ dB.
 6. Average value = peak reading – 38.06.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 78	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	GFSK	DETECTOR FUNCTION	Peak (PK) Average (AV)
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	26deg. C, 65%RH, 991hPa
TESTED BY	Dean Wang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	90.44 PK			1.31 H	303	57.40	33.04
2	*2480.00	52.38 AV			1.31 H	303	19.34	33.04
3	2483.50	40.11 PK	74.00	-33.89	1.05 H	221	7.06	33.05
4	2483.50	35.62 AV	54.00	-18.38	1.05 H	221	2.57	33.05
5	4960.00	49.34 PK	74.00	-24.66	1.00 H	241	10.34	39.00
6	4960.00	11.28 AV	54.00	-42.72	1.00 H	241	-27.72	39.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	83.58 PK			1.14 V	221	50.54	33.04
2	*2480.00	45.52 AV			1.14 V	221	12.48	33.04
3	2483.50	34.52 PK	74.00	-39.48	1.02 V	225	1.47	33.05
4	2483.50	30.11 AV	54.00	-23.89	1.02 V	225	-2.94	33.05
5	4960.00	48.27 PK	74.00	-25.73	1.00 V	257	9.27	39.00
6	4960.00	10.21 AV	54.00	-43.79	1.00 V	257	-28.79	39.00

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The DH1 packet was the worse case duty cycle for a transmit dwell time on a channel, based upon bluetooth theory the transmitter is on 0.625 * 2 per 1.25ms per channel. Therefore, the duty cycle be equal to: $20\log(1.25/100) = -38.06$ dB.
 6. Average value = peak reading – 38.06.



4.2. BAND EDGES MEASUREMENT

4.8.1. LIMITS OF BAND EDGES MEASUREMENT

Below -20dB of the highest emission level of operating band (in 100KHz RBW).

4.8.2. TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
SPECTRUM ANALYZER	FSP40	100040	Jun. 07, 2007

NOTES: The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.

4.8.3. TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low loss cable. Set both RBW and VBW of spectrum analyzer to 100 kHz with suitable frequency span including 100 MHz bandwidth from band edge. The band edges was measured and recorded.

4.8.4. DEVIATION FROM TEST STANDARD

No deviation.

4.8.5. EUT OPERATING CONDITION

The software provided by client enabled the EUT to transmit and receive data at lowest and highest channel frequencies individually.

4.8.6. TEST RESULTS

The spectrum plots are attached on the following 4 images. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

For Serial No.: 068

NOTE 1:

The band edge emission plot on the next page shows 48.12dBc between carrier maximum power and local maximum emission in restrict band (2.3890GHz). The emission of carrier strength list in the test result of channel 0 at the item 4.2.7 is 94.13dBuV/m (Peak), so the maximum field strength in restrict band is $94.13 - 48.12 = 46.01$ dBuV/m, which is under 74 dBuV/m limit.

Average value = $46.01 - 38.06 = 7.95$ dBuV/m, which is under 54dBuV/m limit.

*The DH1 packet was the worse case duty cycle for a transmit dwell time on a channel, based upon bluetooth theory the transmitter is on $0.625 * 2$ per 1.25ms per channel. Therefore, the duty cycle correlation factor be equal to: $20\log(1.25/100) = -38.06$ dB.

Average value = peak reading -38.06

NOTE 2:

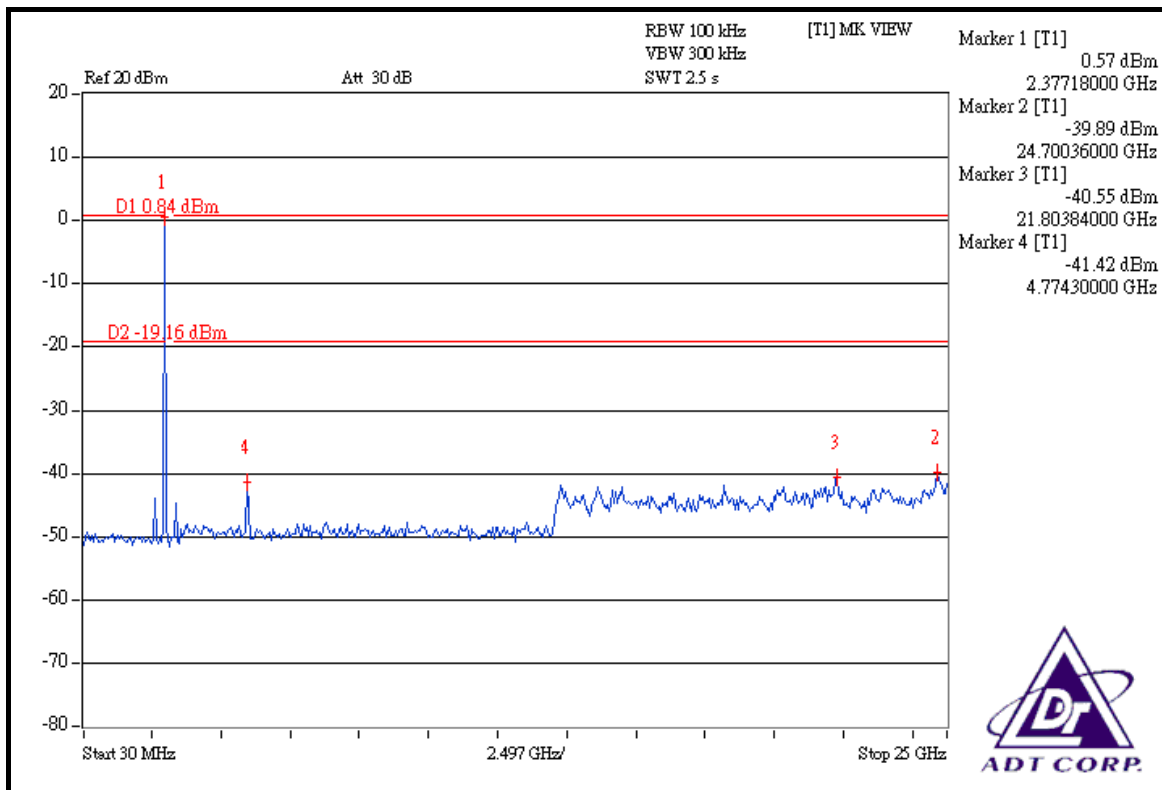
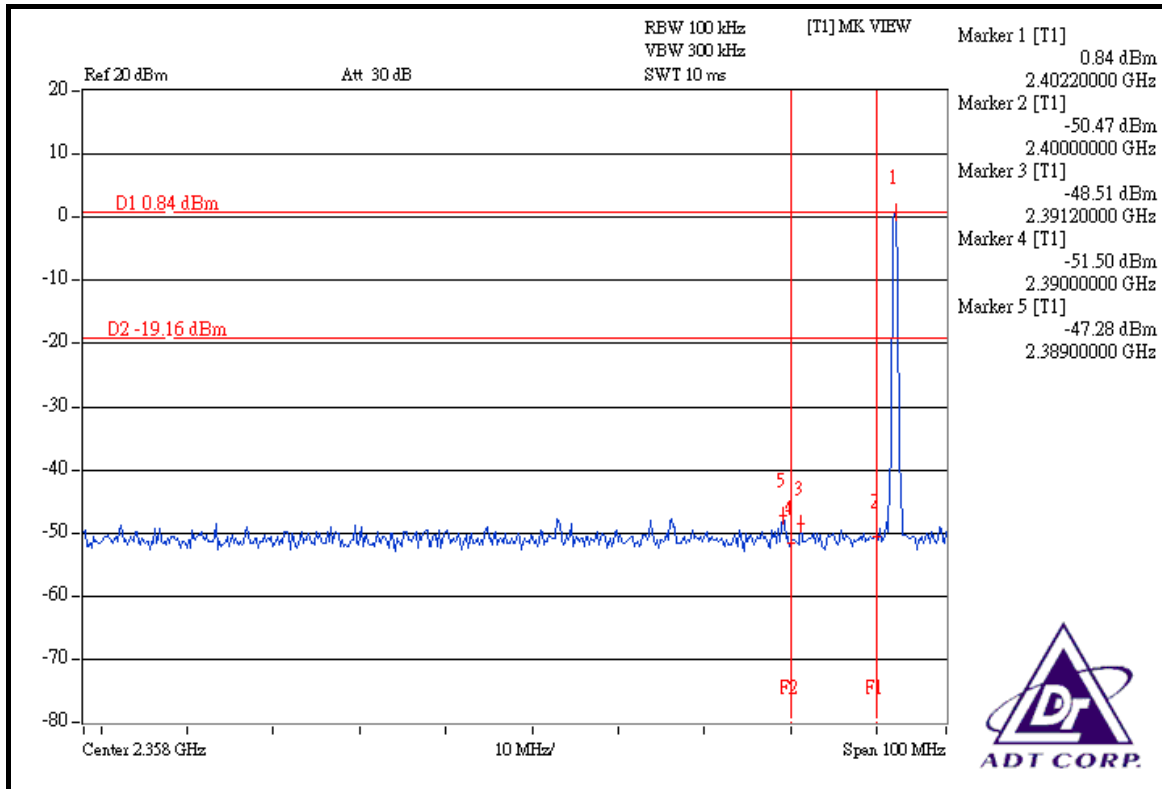
The band edge emission plot on the next second page shows 46.38dBc between carrier maximum power and local maximum emission in restrict band (2.4928GHz). The emission of carrier strength list in the test result of channel 78 at the item 4.2.7 is 90.44dBuV/m (Peak), so the maximum field strength in restrict band is $90.44 - 46.38 = 44.06$ dBuV/m, which is under 74 dBuV/m limit.

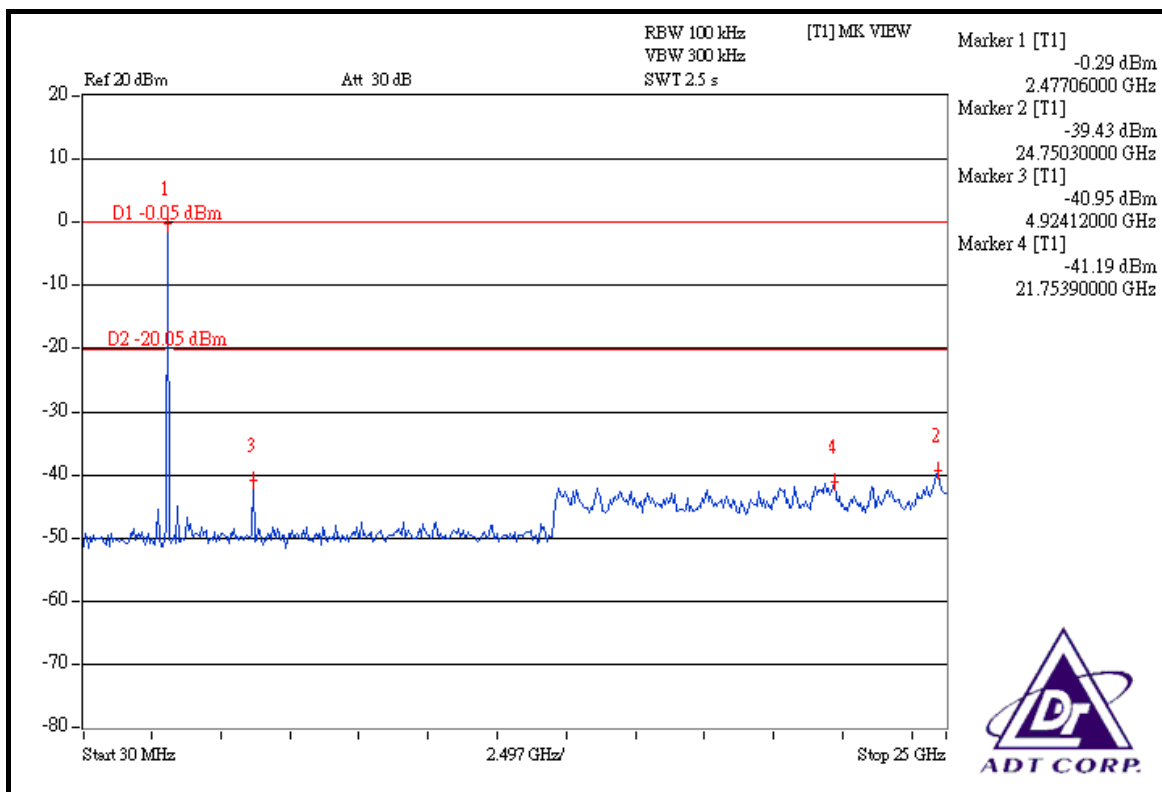
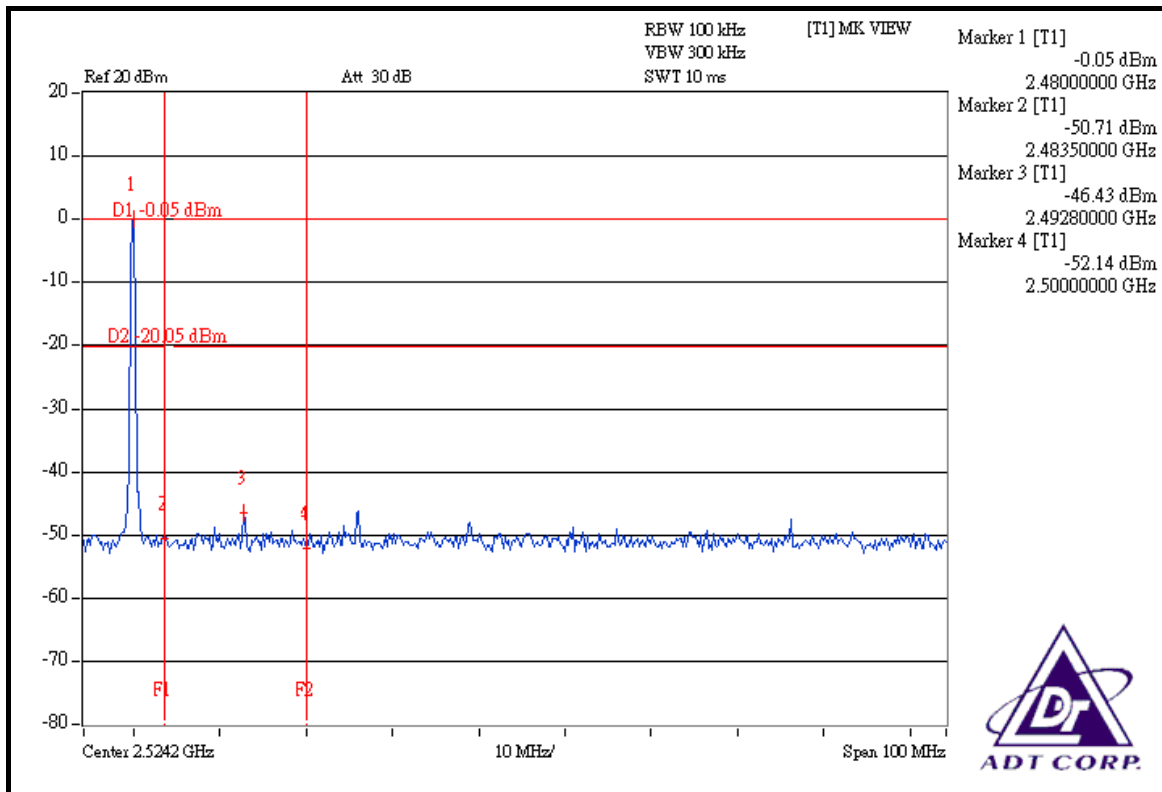
Average value = $44.06 - 38.06 = 6.00$ dBuV/m, which is under 54dBuV/m limit.

*The DH1 packet was the worse case duty cycle for a transmit dwell time on a channel, based upon bluetooth theory the transmitter is on $0.625 * 2$ per 1.25ms per channel. Therefore, the duty cycle correlation factor be equal to: $20\log(1.25/100) = -38.06$ dB.

Average value = peak reading -38.06

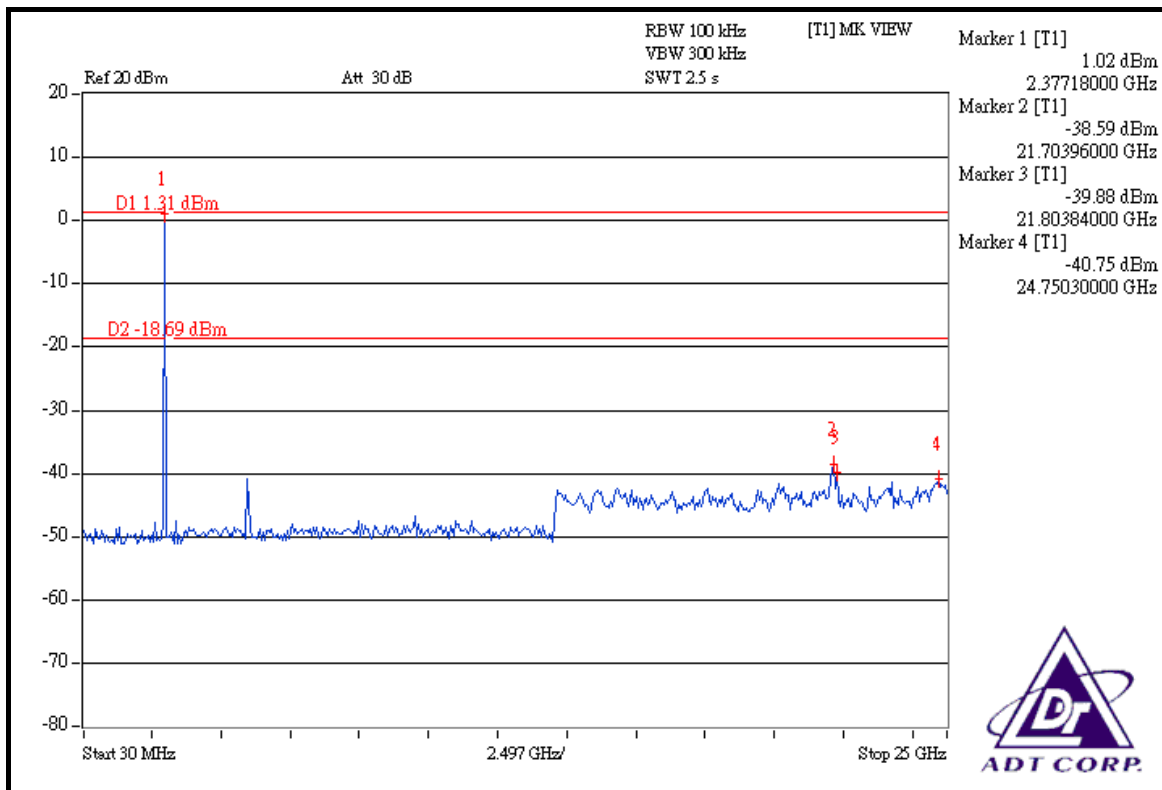
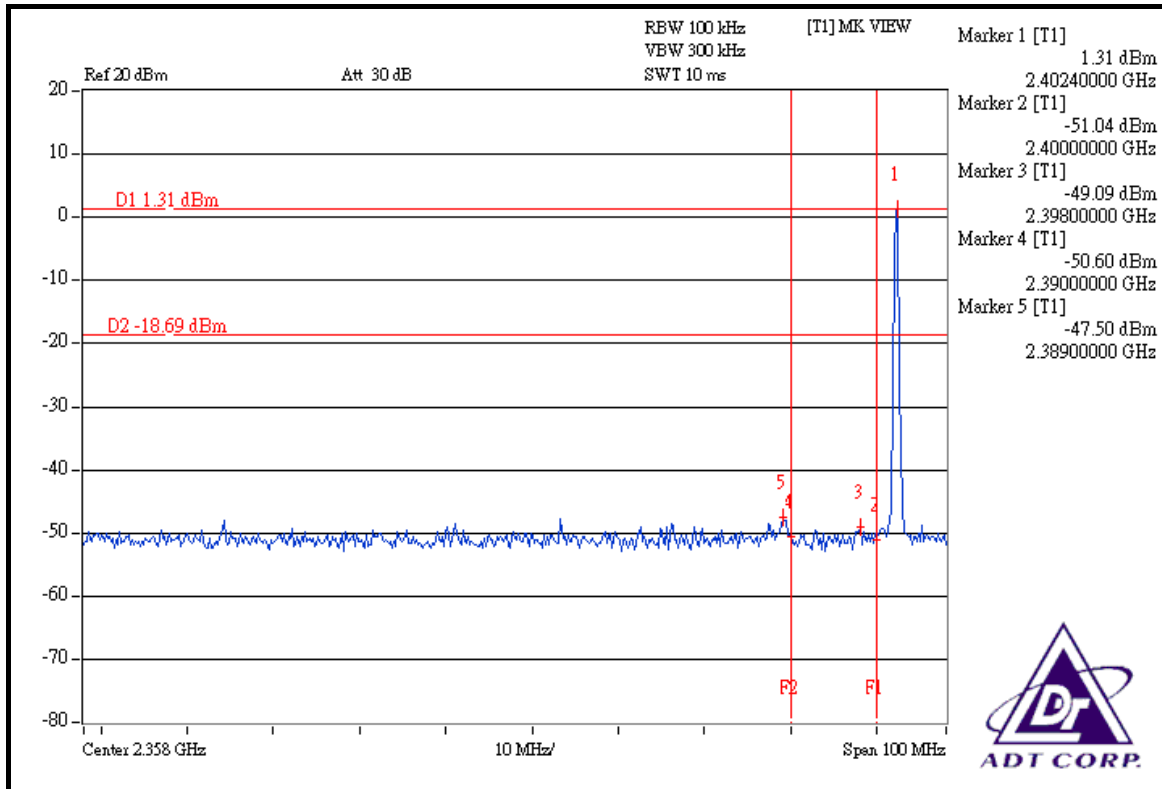
For Serial No.: 068

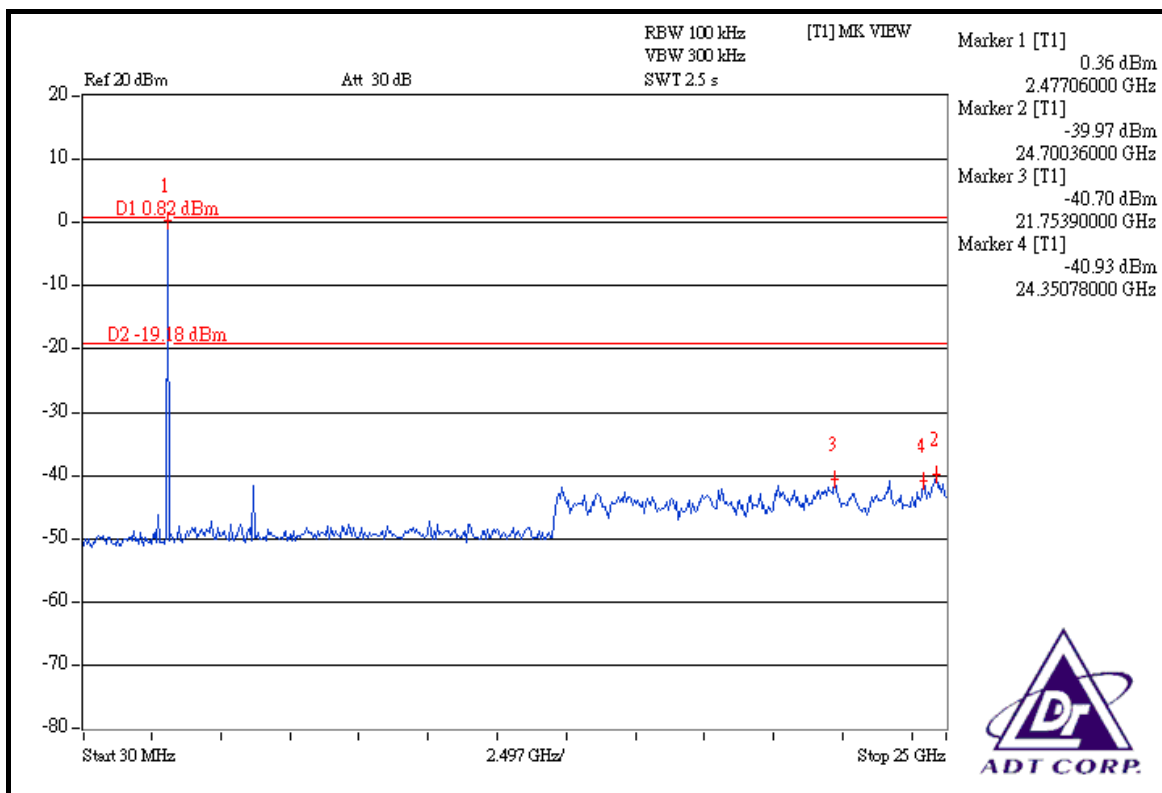
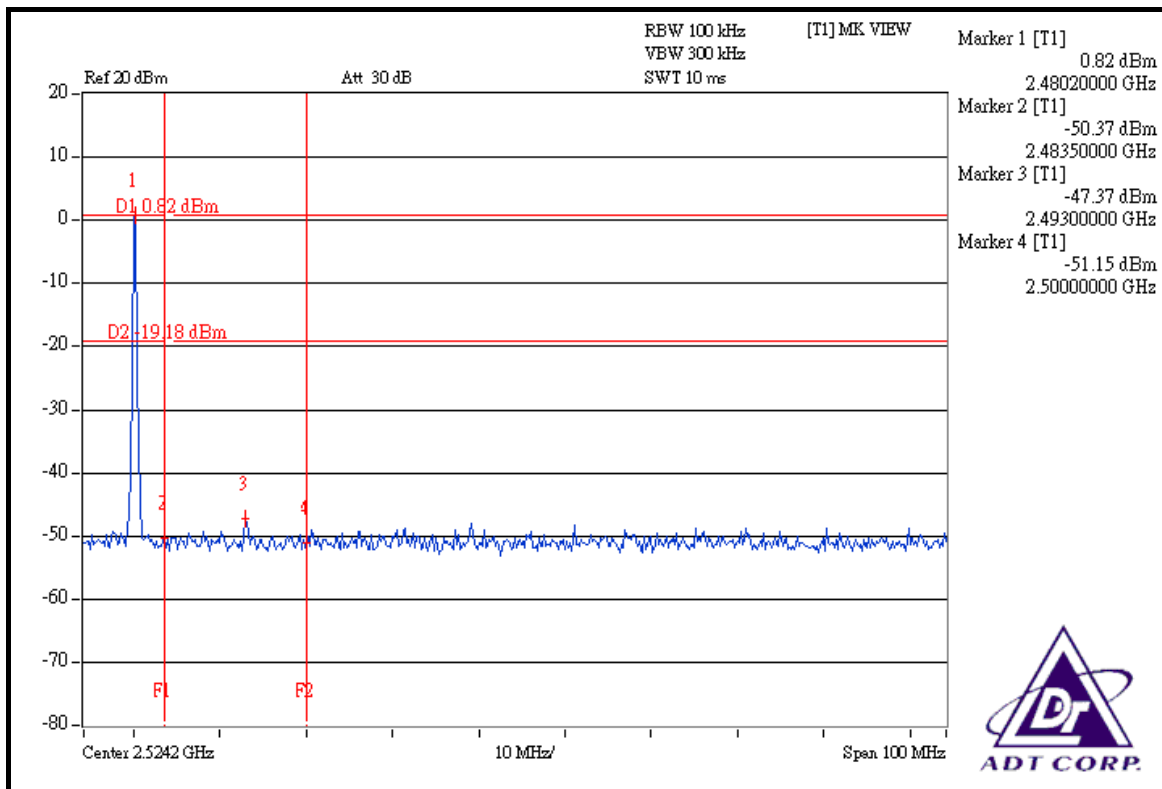






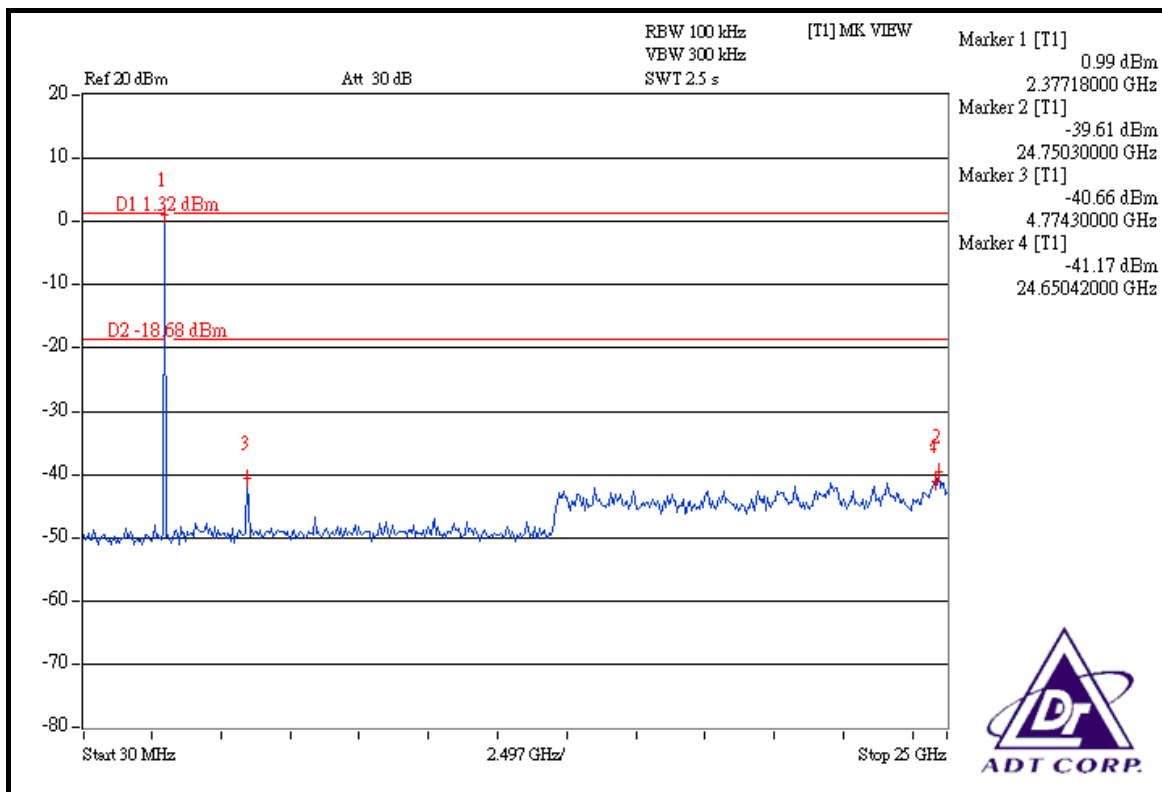
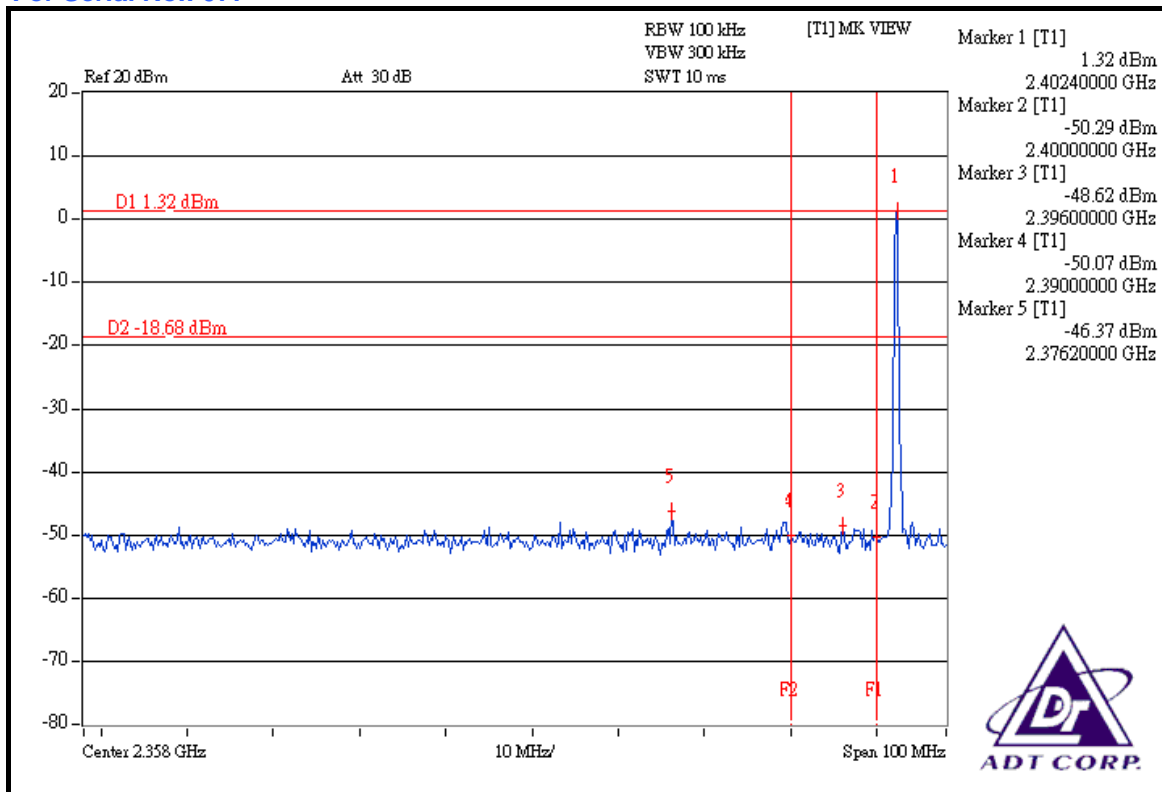
For Serial No.: 073

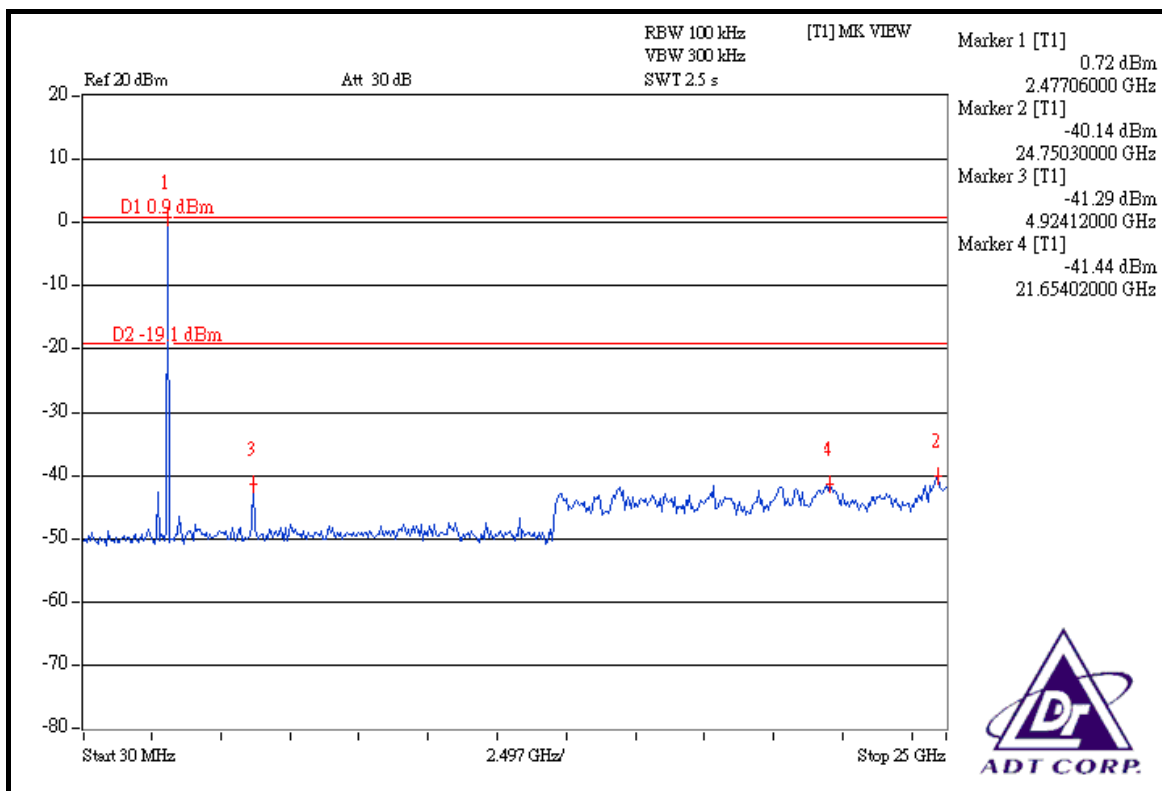
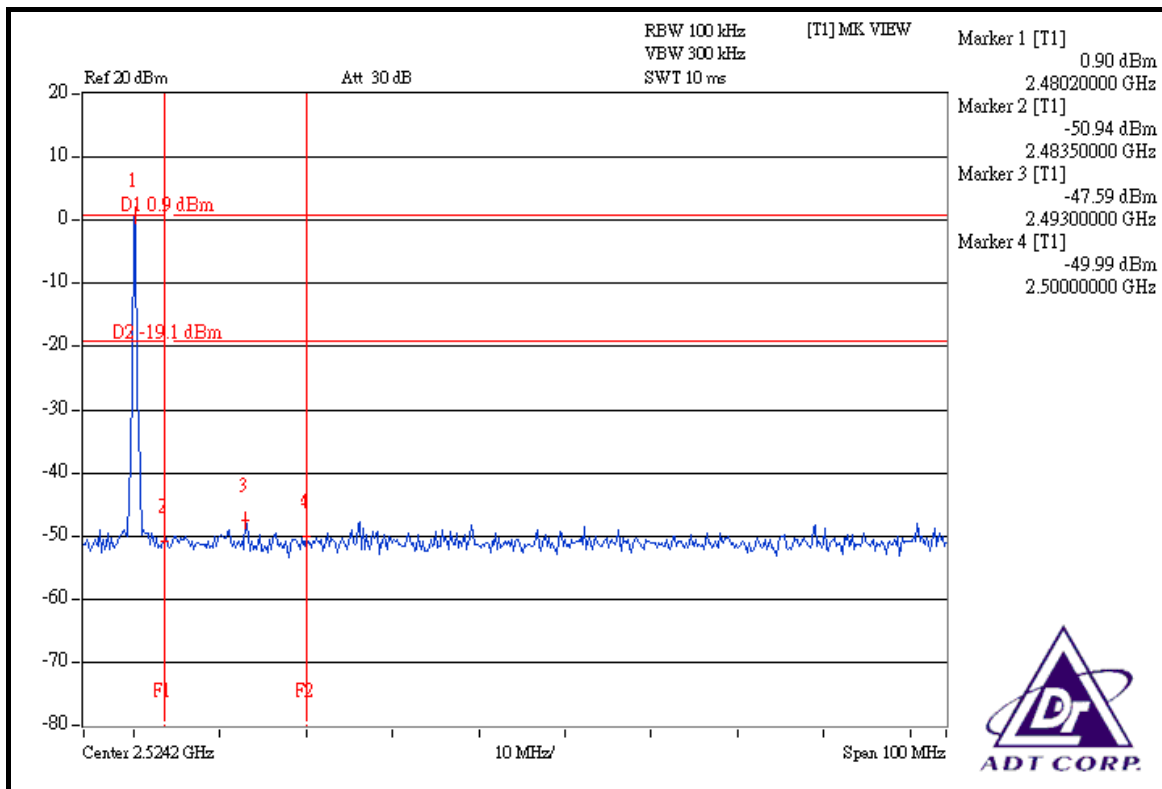






For Serial No.: 077







5. PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).



6. INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA	FCC, UL, A2LA
Germany	TUV Rheinland
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA , CSA
R.O.C.	TAF, BSMI, NCC
Netherlands	Telefication
Singapore	PSB , GOST-ASIA(MOU)
Russia	CERTIS(MOU)

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site:

www.adt.com.tw/index.5/phtml. If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF Lab:

Tel: 886-3-5935343

Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Telecom Lab:

Tel: 886-3-3183232

Fax: 886-3-3185050

Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.

7. APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.